					DEPARTMENT					AMENI	FC DED REPOR	RM 3	
		AF	PPLICATION FO	OR PERM	IIT TO DRILL				1. WELL NAME and N		921-36A4	BS	
2. TYPE O	F WORK	DRILL NEW WELL	REENTER	P&A WELL	. DEEPEN	WELL ()		3. FIELD OR WILDCA	T NATURAL	. BUTTES		
4. TYPE O	F WELL				hane Well: NO				5. UNIT or COMMUNITIZATION AGREEMENT NAME				
6. NAME (OF OPERATOR		KERR-MCGEE OIL						7. OPERATOR PHONE		0.0515		
8. ADDRE	SS OF OPERAT				<u> </u>				9. OPERATOR E-MAI				
	AL LEASE NUN		P.O. Box 173779		CO, 80217 NERAL OWNERS	SHIP			12. SURFACE OWNER		anadarko	.com	
	., INDIAN, OR S	ML 22265		FED	DERAL NO	DIAN 🔵	STATE () FEE		DIAN 🔵	STATE		EE 🔵
13. NAME OF SURFACE OWNER (if box 12 = 'fee')									14. SURFACE OWNE	R PHONE	(if box 12	= 'fee')	
15. ADDR	ESS OF SURFA	CE OWNER (if box	12 = 'fee')						16. SURFACE OWNE	R E-MAIL	(if box 12	! = 'fee')	
	N ALLOTTEE O	R TRIBE NAME			TEND TO COMM		RODUCTION	FROM	19. SLANT				
(II BOX 12	- INDIAN)			YES	(Submit C	Commingli	ing Applicatio	n) NO	VERTICAL DI	RECTIONA	AL 📵 H	HORIZON	ΓAL 🔵
20. LOC	TION OF WELL	-		FOOTAGE	ES	QTR	R-QTR	SECTION	TOWNSHIP	R/	ANGE	МЕ	ERIDIAN
LOCATIO	N AT SURFACI	E	67	5 FNL 686	6 FEL	NE	ENE	36	9.0 S	21	1.0 E		S
Top of Uppermost Producing Zone 746 FNL 4			6 FNL 493	3 FEL	NE	ENE	36	9.0 S	21	1.0 E		S	
At Total	Depth		740	6 FNL 493	3 FEL	NE	ENE	36	9.0 S		21.0 E S		S
21. COUNTY 22. DISTANCE TO NEAREST						REST LEA 493		et)	23. NUMBER OF ACR	ES IN DRI 63		IT	
25. DISTANCE TO NEAREST (Applied For Drilling or Co							leted)	POOL	26. PROPOSED DEPT		TVD: 104	83	
27. ELEVATION - GROUND LEVEL 28. BOND NUMBER								29. SOURCE OF DRIL			PPLICAB	LE	
		4924				22013				43-8			
String	Hole Size	Casing Size	Length	Weight	Hole, Casing Grade & T		Max Mu		Cement		Sacks	Yield	Weight
Surf	12.25	8.625	0 - 2490	28.0	J-55 LT		0.2		Type V	180	1.15	15.8	
									Class G		270	1.15	15.8
Prod	7.875	4.5	0 - 10492	11.6	HCP-110	LT&C	13.	0 Pr	emium Lite High Stre	ength	320	3.38	12.0
									50/50 Poz		1530	1.31	14.3
					А	TTACHN	MENTS						
	VEF	RIFY THE FOLLO	WING ARE AT	ACHED I	IN ACCORDAN	ICE WITH	H THE UTA	H OIL AND GA	S CONSERVATION O	SENERA	L RULES		
WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER						∠ COMF	LETE DRILLING	PLAN					
AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)						FORM	5. IF OPERATOR	IS OTHER THAN THE L	EASE OW	NER			
DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED))	ТОРО	GRAPHICAL MAP						
NAME Da	anielle Piernot			TITLE R	egulatory Analys	t		PHONE 72	0 929-6156				
SIGNATU	RE			DATE 1	2/19/2011			EMAIL dan	elle.piernot@anadarko.	com			
	BER ASSIGNED)47522680			APPROV	/AL			B	acqill				
								Permit Manager					

Morgan State 921-36A Pad Drilling Program

Kerr-McGee Oil & Gas Onshore. L.P.

MORGAN STATE 921-36A4BS

 Surface:
 675 FNL / 686 FEL
 NENE

 BHL:
 746 FNL / 493 FEL
 NENE

Section 36 T9S R21E

Unitah County, Utah Mineral Lease: ML-22265

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2.a <u>Estimated Tops of Important Geologic Markers</u>: <u>Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations</u>:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
18.	0 0 0	
Uinta	0 - Surface	
Green River	1,258'	
Birds Nest	1,576'	Water
Mahogany	2,037'	Water
Wasatch	4,539'	Gas
Mesaverde	7,206'	Gas
Sego	9,380'	Gas
Castlegate	9,444'	Gas
MN5	9,883'	Gas
TVD =	10,483'	
TD =	10,492'	

2.c Kerr McGee Oil & Gas Onshore LP (Kerr McGee) will either drill to the the Blackhawk formation, which is part of the Mesaverde formation, or the Wasatch/Mesaverde formation. If Kerr McGee drills to the Blackhawk formation (part of the Mesaverde formation), please refer to MN5 as the bottom formation. The attached Blackhawk Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the deeper formation.

If Kerr McGee drills to the Wasatch/Mesaverde formation please refer to Sego as the bottom formation. The attached Wasatch/Mesaverde Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the depths the Wasatch/Mesaverde formations are found.

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

1 of 9

API Well Number: 43047522680000

Morgan State 921-36A Pad

Drilling Program
2 of 9

4. Proposed Casing & Cementing Program:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

5. <u>Drilling Fluids Program:</u>

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

6. <u>Evaluation Program</u>:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

7. <u>Abnormal Conditions</u>:

7.a Blackhawk (Part of Mesaverde Formation) Target Formation

Maximum anticipated bottom hole pressure calculated at 10483' TVD, approximately equals 6,919 psi (0.66 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 4,660 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

7.b Wasach/Mesaverde Target Formation

Maximum anticipated bottom hole pressure calculated at 9380' TVD, approximately equals 6,003 psi (0.64 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,926 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. <u>Variances:</u>

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- · Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

API WEII NUMBEL: 4304/322000000

Morgan State 921-36A Pad Drilling Program

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Morgan State 921-36A Pad Drilling Program
4 of 9

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

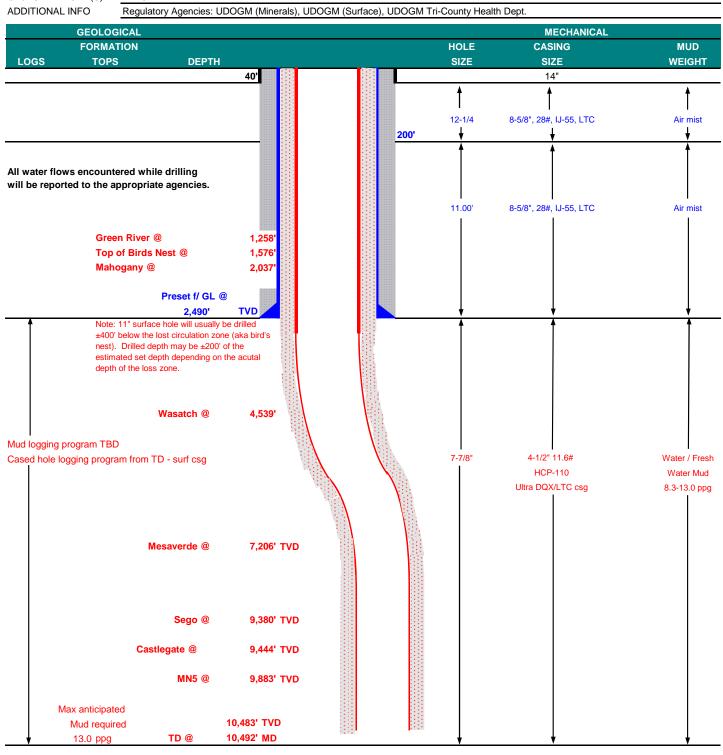
10. Other Information:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program



KERR-McGEE OIL & GAS ONSHORE LP BLACKHAWK DRILLING PROGRAM

COMPANY NAME KER	R-McGEE OIL &	GAS ONSHORE	LP		DATE	December	19, 2011		
WELL NAME MO	RGAN STATI	E 921-36A4B	S	TD	10,483'	TVD	10,492' MD		
FIELD Natural Butte	Natural Buttes		COUNTY Uintah		STATE Utah		SHED ELEVATION _	4,923'	
SURFACE LOCATION	NENE	675 FNL	686 FEL	Sec 36	T 9S	R 21E			
	Latitude:	39.997919	Longitude	: -109.49	2411		NAD 27		
BTM HOLE LOCATION	NENE	746 FNL	493 FEL	Sec 36	T 9S	R 21E			
	Latitude:	39.997722	Longitude	e: -109.49	1723		NAD 27		
OBJECTIVE ZONE(S) BLACKHAWK			•			•			
ADDITIONAL INFO	Regulatory Age	ncies: LIDOGM (Minerals) LID(CM (Surface) TIDOG	M Tri-County I	lealth Dent		





KERR-McGEE OIL & GAS ONSHORE LP BLACKHAWK DRILLING PROGRAM

CASING PROGRAM		DESIGN FACTORS									
_				LTC	DQX						
	SIZE	INT	ERVA	7	WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION	
CONDUCTOR	14"	()-40'								
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,490	28.00	IJ-55	LTC	2.16	1.61	5.70	N/A
								10,690	8,650	279,000	367,174
PRODUCTION	4-1/2"	0	to	5,000	11.60	HCP-110	DQX	1.19	1.22		3.76
	4-1/2"	5,000	to	10,492'	11.60	HCP-110	LTC	1.19	1.22	5.47	

Surface Casing:

(Burst Assumptions: TD = 13.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 9000 psi) 0.66 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT		YIELD				
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15				
Option 1		+ 0.25 pps flocele									
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15				
		+ 2% CaCl + 0.25 pps flocele									
SURFACE	NOTE: If well will circulate water to surface, option 2 will be utilized										
Option 2 LEAD	1,990'	65/35 Poz + 6% Gel + 10 pps gilsonite	180	35%	11.00		3.82				
		+ 0.25 pps Flocele + 3% salt BWOW									
TAIL	500'	Premium cmt + 2% CaCl		35%	15.80		1.15				
		+ 0.25 pps flocele									
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15				
PRODUCTION LEAD	4,032'	Premium Lite II +0.25 pps	320	35%	12.00		3.38				
		celloflake + 5 pps gilsonite + 10% gel									
		+ 0.5% extender									
TAIL	6,460'	50/50 Poz/G + 10% salt + 2% gel	1,530	35%	14.30		1.31				
		+ 0.1% R-3									

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

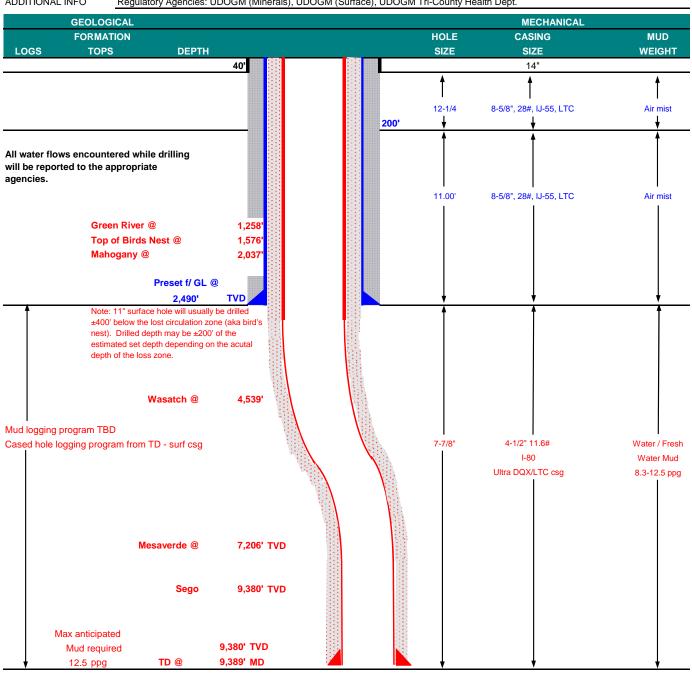
	Wost figs have FVT System for muu	mornioning. If no FVT is available, visual mornioning will be utilized.		
DRILLING	ENGINEER:		DATE:	
		Nick Spence / Danny Showers / Chad Loesel		
DRILLING	SUPERINTENDENT:		DATE:	
		Kenny Gathings / Lovel Young	_	

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained



KERR-McGEE OIL & GAS ONSHORE LP WASATCH/MESAVERDE DRILLING PROGRAM

COMPANY NAME KER	R-McGEE OIL 8	GAS ONSHOR	E LP		DATE	Decembe					
WELL NAME MO	RGAN STAT	E 921-36A4E	S		TD	9,380'	TVD	9,389' MD			
FIELD Natural Butte	COUNTY	COUNTY Uintah ST.			FINI	SHED ELEVATION_	4,923'				
SURFACE LOCATION	NENE	675 FNL	686 FEL	Sec 36	T 9S	R 21E					
	Latitude:	39.997919	Longitude:	-109.492	2411		NAD 27				
BTM HOLE LOCATION	NENE	746 FNL	493 FEL	Sec 36	T 9S	R 21E					
	Latitude: 39.997722 Longitude: -		-109.491	723		NAD 27					
OBJECTIVE ZONE(S)	Wasatch/Mesa	averde	•								
ADDITIONAL INFO	Regulatory Ag	egulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.									





CACINO DDOODAM

KERR-McGEE OIL & GAS ONSHORE LP

WASATCH/MESAVERDE DRILLING PROGRAM

CASING PROGRAM	<u>VI</u>		DESIGN FACTORS								
										LTC	DQX
	SIZE	INT	ERVAI	L	WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION	
CONDUCTOR	14"	()-40'								
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,490	28.00	IJ-55	LTC	2.16	1.61	5.70	N/A
								7,780	6,350		267,035
PRODUCTION	4-1/2"	0	to	5,000	11.60	I-80	DQX	1.11	1.04		3.03
								7,780	6,350	223,000	
	4-1/2"	5.000	to	9.389'	11.60	I-80	LTC	1.11	1.04	5.41	

Surface Casing:

(Burst Assumptions: TD = 12.5 0.73 psi/ft = frac gradient @ surface shoe ppg)

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 0.64 psi/ft = bottomhole gradient psi)

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD						
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Option 1		+ 0.25 pps flocele										
TOP OUT CMT (6 jo	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15						
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SURFACE		NOTE: If well will circulate water to surface, option 2 will be utilized										
Option 2	AD 1,990'	65/35 Poz + 6% Gel + 10 pps gilsonite	180	35%	11.00	3.82						
		+ 0.25 pps Flocele + 3% salt BWOW										
T.	AIL 500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15						
		+ 0.25 pps flocele										
TOP OUT C	MT as required	Premium cmt + 2% CaCl	as req.		15.80	1.15						
PRODUCTION LE	4,039'	Premium Lite II +0.25 pps	320	35%	12.00	3.38						
		celloflake + 5 pps gilsonite + 10% gel										
		+ 0.5% extender										
T.	AIL 5,350'	50/50 Poz/G + 10% salt + 2% gel	1,260	35%	14.30	1.31						
		+ 0.1% R-3										

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
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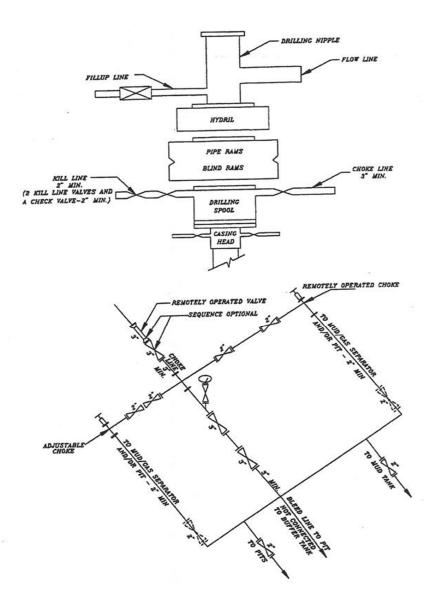
BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum interval	s.
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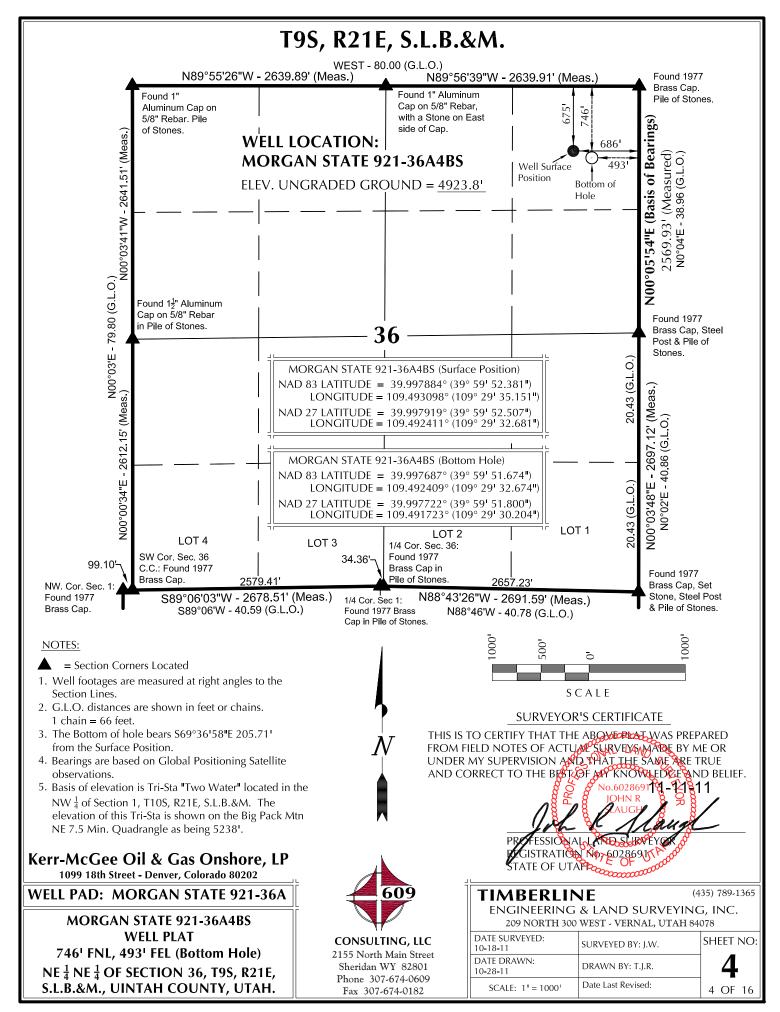
	Most rigs have PVT System for muc	f monitoring. If no PVT is available, visual monitoring will be utilized.	
DRILLING	ENGINEER:		DATE:
		Nick Spence / Danny Showers / Chad Loesel	
DRILLING	SUPERINTENDENT:		DATE:
		Kenny Gathings / Lovel Young	

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

EXHIBIT A
MORGAN STATE 921-36A4BS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK



	SURFACE POSITION							BOTTOM HOLE					
WELL NAME		D83		NAD27		F06=:==			NAD83 NAD27				
	LATITUDE	LONGITUDE	LATITUI		NGITUDE	FOOTAGES	LATIT			GITUDE	LATITUDE		FOOTAGES
MORGAN STATE 921-36H1CS	39°59'52.321' 39.997867°	" 109°29'35.529" 109.493202°	39°59'52. 39.997902	1.00	29'33.059" 1 92516°	681' FNL 715' FEL	39°59'4 39.9949			9'32.692" 92414°	39°59'41.989" 39.994997°	109°29'30.222" 109.491728°	1739' FNL 493' FEL
MORGAN STATE	39°59'52.341'		39°59'52.	467" 109°2	29'32.933"		39°59'4	5.133"			39°59'45.259"	109°29'30.216"	1408' FNL
921-36H1BS	39.997872°	109.493167°	39.997907		192481°	706' FEL	39.9958			92413°	39.995905°	109.491727°	4931 FEL
MORGAN STATE 921-36A4CS	39°59'52.361' 39.997878°	" 109°29'35.277" 109.493133°	39°59'52. 39.997913		29'32.807" 192446°	677' FNL 696' FEL	39°59'4 39.9967			9'32.680" 92411°	39°59'48.529" 39.996814°	109°29'30.210" 109.491725°	1077' FNL 493' FEL
MORGAN STATE	39°59'52.381'				29'32.681"	675' FNL	39°59'5			9'32.674"		109°29'30.204"	746' FNL
921-36A4BS	39.997884°	109.493098°	39.997919		192411°	686' FEL	39.9976	587°	109.49	92409°	39.997722°	109.491723°	493¹ FEL
MORGAN STATE 8-36	39°59'52.623' 39.997951°	" 109°29'35.217" 109.493116°	39°59'52. 39.997986		29'32.747" 192430°	650' FNL 691' FEL							
		1.03.133.110		1.00.		- From Surface	Position	to Botto	om Ho	e			
WELL NAME	NORTH	EAST WE	LL NAME	NORTH	EAS		NAME	NOR		EAST	WELL NAM	IE NORTH	EAST
MORGAN STATE	-1058.5		RGAN STATE 36H1BS	-729.6	211.		N STATE	-400	0.61	202.1	MORGAN STA 921-36A4BS	-71.7	192.8'
921-36H1CS		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	3011103			921-36	.403				321-30/4-03		
			MORCH Exist. W.	MORO EXIST STATES	CAN STATE ON		THE S.L.I GLO	E NE ¼ (B.&M. DBAL F	of se Whic Positi	CTION 30 CH IS TAK ONING S	HE EAST LINE 6, T9S, R21E, (EN FROM SATELLITE R N00°05'54"		
370	8.27667° 6'36"W	N SCALE		1,361,393 1,09	361° 185	N D	ORGA	N STA	TE 92	ORGAN 21-36A4 30833° 2	25.0').38389° 'E-205.71' B	ottom of lole
Kerr-Mc	Gee Oil 8	SCALE	hore, L		361° 185	Az $Az = 168.23306^{\circ}$ $Az = 168.23306^{\circ}$	ORGA	N STA	TE 92	21-36A4	BS 25.0').38389° 'E-205.71' B	
Kerr-Mc(Gee Oil &	S C A L E	hore, L	.P	361° 185	Az=168:23306°	ORGA	N STA 1. W.H. 153.134.170	TE 92.=348.	21-36A4 30833° 2	BS 15.0' S69°36'58"	0.38389° E-205.71' B	
Kerr-McC 1099 13	Gee Oil & 8th Street - Do	S C A L E	hore, L 80202 921-36	.P	364 32.0 - \$17.46.01 "E Hole)	Az $Az = 168.23306^{\circ}$ $Az = 168.23306^{\circ}$	ORGA	N STA	TE 92.=348.	21-36A4 30833° 2	BS 55.0' \$\sigma_{569}^{Az=110} \times_{569}^{36'58''}\$	0.38389° E-205.71' B	lole 35) 789-1365
Kerr-McC 1099 13 WELL PAI	Gee Oil & 8th Street - Do D - MORO	S C A L E & Gas Onsenver, Colorado GAN STATE ERFERENCE P	hore, L 80202 921-36	.P	361° 185	Az=168:23306°	ORGA	N STA	TE 92.=348.	81-36A4 30833° 2	BS 25.0' S69°36'58" INE G & LAND	0.38389° E-205.71' B	35) 789-1365 G, INC.
Kerr-McC 1099 13 WELL PAI	Gee Oil & 8th Street - Do D - MORO	S C A L E & Gas Onsenver, Colorado GAN STATE ERFERENCE P STATE 921-36H	hore, L 80202 921-36. LAT 1CS,	.P	S17°46'01"E - Hole) C5 C5	Az=168:23306° (To Bottom Hors) Az=168:23306° (To Bottom Hors)	ORGAI OR	N STA	IME 209 E SURVI	81-36A4 30833° 2 BERLI NEERIN NORTH 3	BS 25.0' AZ=110 \$69°36'58'' S69°36'58'' AZ=1100 S69°36'58''	0.38389° F-205.71' B H SURVEYINC SURVEYINC	35) 789-1365 i, INC. 178
Kerr-McC 1099 13 WELL PAI WELLS	Gee Oil & 8th Street - Do - MORO L PAD INTE G - MORGAN STANDORGAN	S C A L E & Gas Onsenver, Colorado GAN STATE ERFERENCE P	hore, L 80202 921-36. LAT 1CS,	.P	CS S17°46'01"E - Hole)	Az=168:23306°	ORGAI OR	N STA 1. W.H. 1. W.H. 1. DATE 10-18	IME 209 E SURVIB-11	81-36A4 30833° 2 BERLI NEERIN NORTH 3	BS 25.0' S69°36'58" INE G & LAND	0.38389° F-205.71' B H SURVEYINC SURVEYINC	35) 789-1365 G, INC.
Kerr-McC 1099 13 WELL PAI WELLS MM MM	Gee Oil & 8th Street - De D - MORO L PAD INTE 6 - MORGAN STAI ORGAN STAI ORGAN STAI	S C A L E S C A L E	hore, L 80202 921-36 LAT 1CS,	.P	CS S17°46'01"E Hole) CONS 2155 No. Sherid	Az=168:23306° (To Bottom Hors) Az=168:23306° (To Bottom Hors) Az=168:23306° (To Bottom Hors)	ORGAN OR	N STA	IME 209 E SURVIB-11 E DRAW	81-36A4 30833° 2 BERLI NEERIN NORTH 3	BS 25.0' AZ=110 \$69°36'58'' S69°36'58'' AZ=1100 S69°36'58''	0.38389° 205.71' B H SURVEYINC SURVEYINC SURJ, UTAH 840 SY: J.W.	35) 789-1365 i, INC. 178
WELL PAI WELLS M LOCA	Gee Oil & 8th Street - De D - MORG L PAD INTE 6 - MORGAN STAIORGAN STAIORGAN STAITED IN SECT	S C A L E S C A L E	hore, L 80202 921-36. LAT 1CS, ,	.P	CS S17°46'01"E Hole) CONS 2155 No. Sherid Phone	Az=168:23306° (To Bottom Hors) Az=168:23306° (To Bottom Hors) Output Main Street	ORGAN OR	N STA 1. W.H. DATE 10-18 10-28	IME 209 E SURVIB-11 E DRAW	BERLI NEERIN NORTH 3 EYED:	BS 25.0' S69°36'58" SURVEYED B	0.38389° E-205.71' B H SURVEYINC CNAL, UTAH 840 Y: J.W. T.J.R.	35) 789-1365 i, INC. 178

EXISTING GRADE @ CENTER OF WELL PAD = 4923.81 FINISHED GRADE ELEVATION = 4923.21 **CUT SLOPES = 1:1** FILL SLOPES = 1.5:1 **TOTAL WELL PAD AREA = 3.06 ACRES TOTAL DISTURBANCE AREA = 5.73 ACRES SHRINKAGE FACTOR = 1.10 SWELL FACTOR = 1.00**

Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street - Denver, Colorado 80202

WELL PAD - MORGAN STATE 921-36A

MORGAN STATE 921-36H1CS, MORGAN STATE 921-36H1BS, **MORGAN STATE 921-36A4CS & MORGAN STATE 921-36A4BS** LOCATED IN SECTION 36, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH



2155 North Main Street

Sheridan, WY 82801

Phone 307-674-0609 Fax 307-674-0182

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 24.148 C.Y. TOTAL FILL FOR WELL PAD = 2,849 C.Y. TOPSOIL @ 6" DEPTH = 1.765 C.Y.EXCESS MATERIAL = 21,299 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT +/- 5,970 C.Y. RESERVE PIT CAPACITY (2' OF FREEBOARD) +/- 22,430 BARRELS

TIMBERLINE

(435) 789-1365 ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

EXISTING WELL LOCATION PROPOSED WELL LOCATION PROPOSED BOTTOM HOLE LOCATION EXISTING CONTOURS (2' INTERVAL) PROPOSED CONTOURS (21 INTERVAL) — PPL — PROPOSED PIPELINE — EPL — EXISTING PIPELINE 60°

HORIZONTAL = 1" = 60" 21 CONTOURS

SCALE: 1"=60" DATE: 11/11/11 SHEET NO: b

6 OF 16

REVISED:

EXISTING GRADE @ CENTER OF WELL PAD = 4923.81 FINISHED GRADE ELEVATION = 4923.21 **CUT SLOPES = 1:1** FILL SLOPES = 1.5:1**TOTAL WELL PAD AREA = 3.06 ACRES TOTAL DISTURBANCE AREA = 5.73 ACRES SHRINKAGE FACTOR = 1.10 SWELL FACTOR = 1.00**

Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street - Denver, Colorado 80202

WELL PAD - MORGAN STATE 921-36A WELL PAD - LOCATION LAYOUT

MORGAN STATE 921-36H1CS, MORGAN STATE 921-36H1BS, **MORGAN STATE 921-36A4CS & MORGAN STATE 921-36A4BS** LOCATED IN SECTION 36, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH



2155 North Main Street

Sheridan, WY 82801

Phone 307-674-0609 Fax 307-674-0182

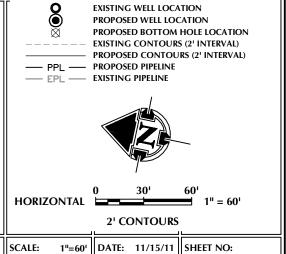
WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 24,148 C.Y. TOTAL FILL FOR WELL PAD = 2,849 C.Y. **TOPSOIL** @ 6" **DEPTH** = 1,765 C.Y. EXCESS MATERIAL = 21,299 C.Y.

COMPLETIONS PIT QUANTITIES

TOTAL CUT FOR COMPLETIONS PIT +/- 4,000 C.Y. **COMPLETIONS PIT CAPACITY** (21 OF FREEBOARD) +/- 14,630 BARRELS

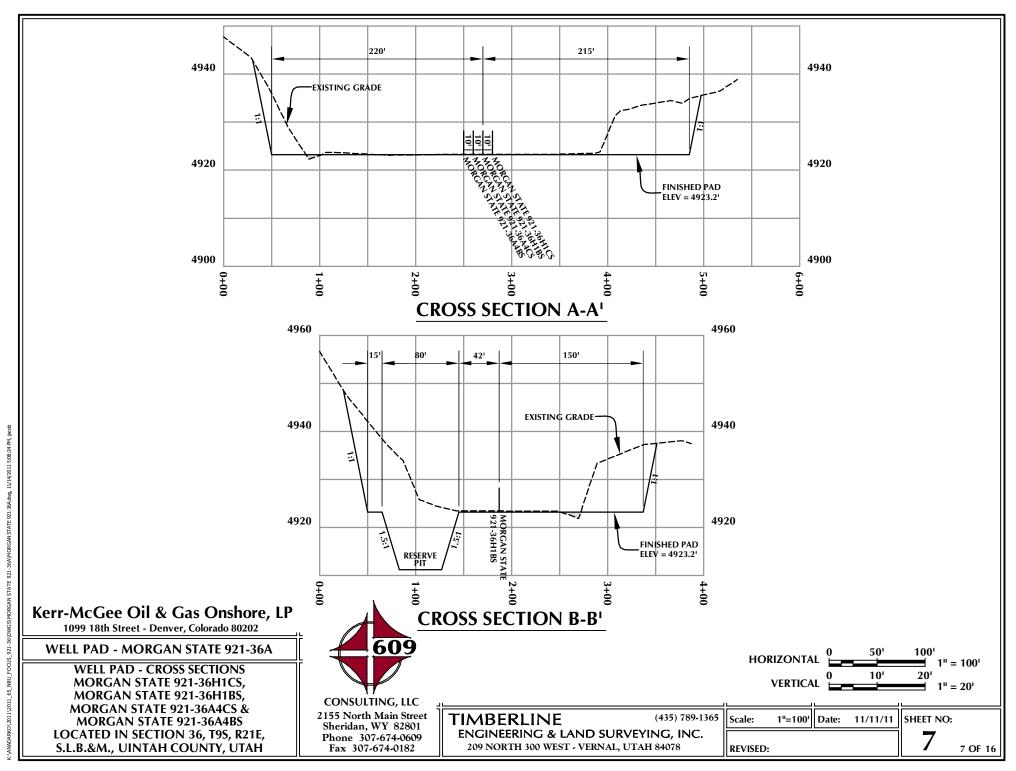
TIMBERLINE

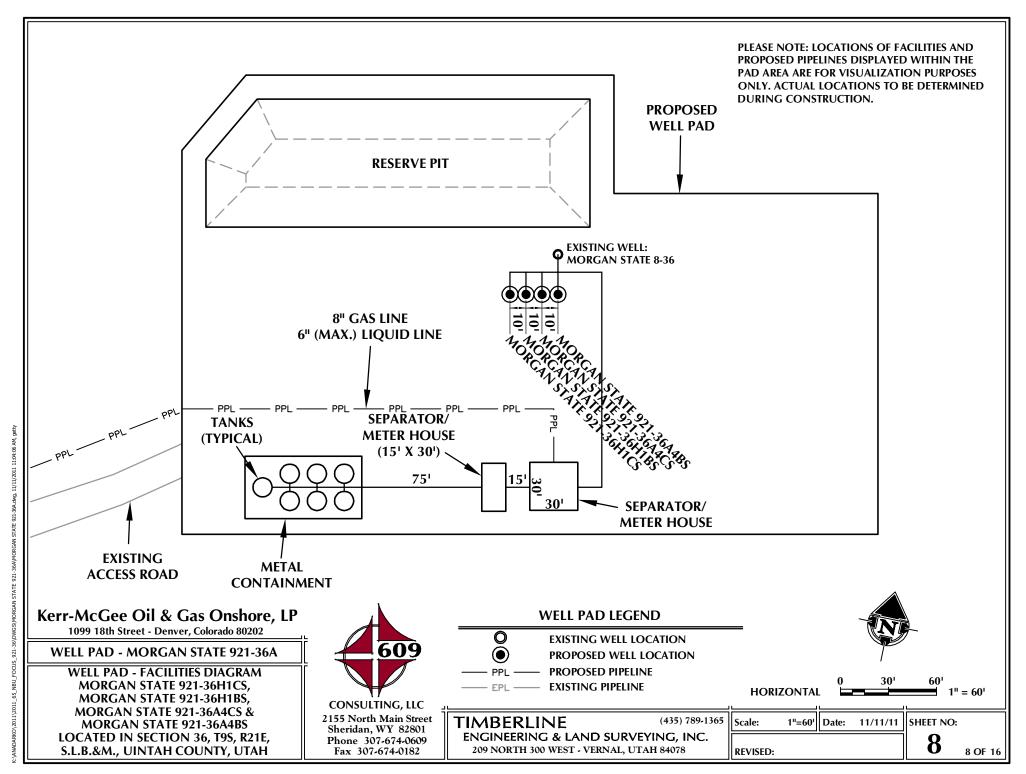


6B 6B OF 16

(435) 789-1365 ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

REVISED:





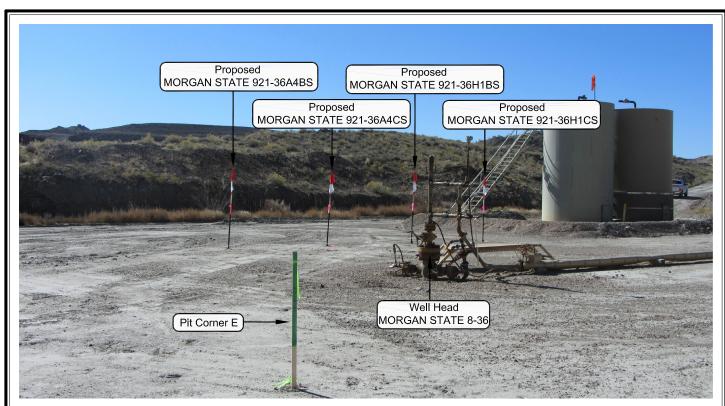


PHOTO VIEW: FROM PIT CORNER E TO LOCATION STAKE

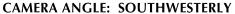




PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: NORTHEASTERLY

Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street - Denver, Colorado 80202

WELL PAD - MORGAN STATE 921-36A

LOCATION PHOTOS MORGAN STATE 921-36H1CS, MORGAN STATE 921-36H1BS, MORGAN STATE 921-36A4CS & **MORGAN STATE 921-36A4BS** LOCATED IN SECTION 36, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.



CONSULTING, LLC 2155 North Main Street Sheridan WY 82801 Phone 307-674-0609

Fax 307-674-0182

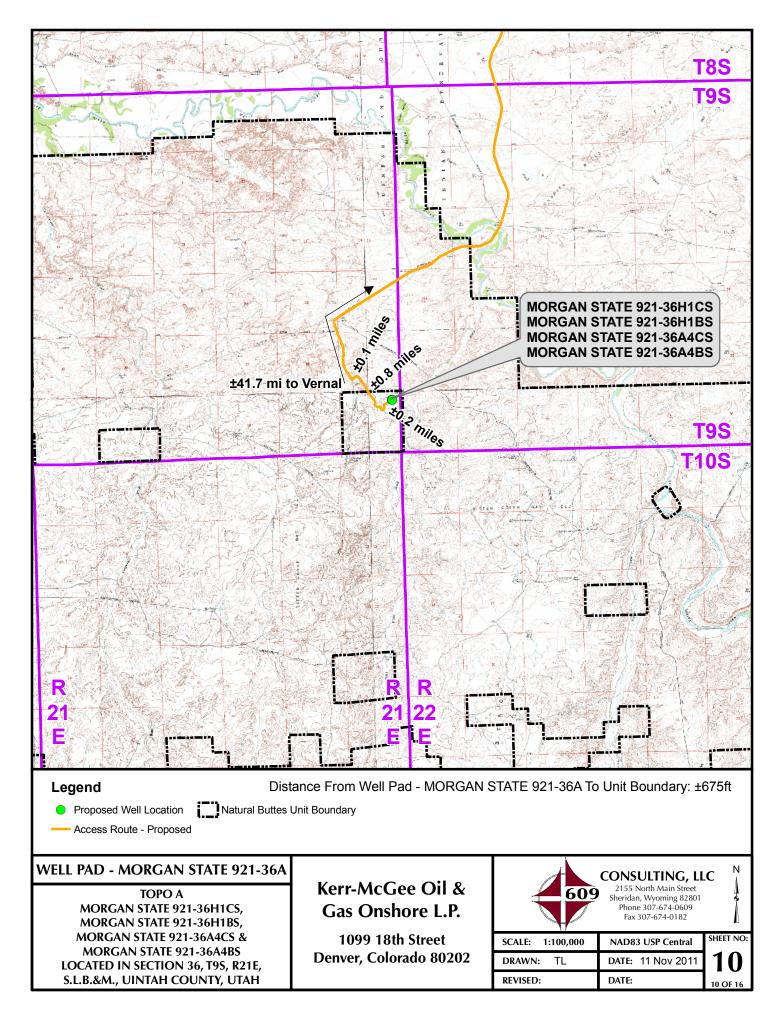
TIMBERLINE

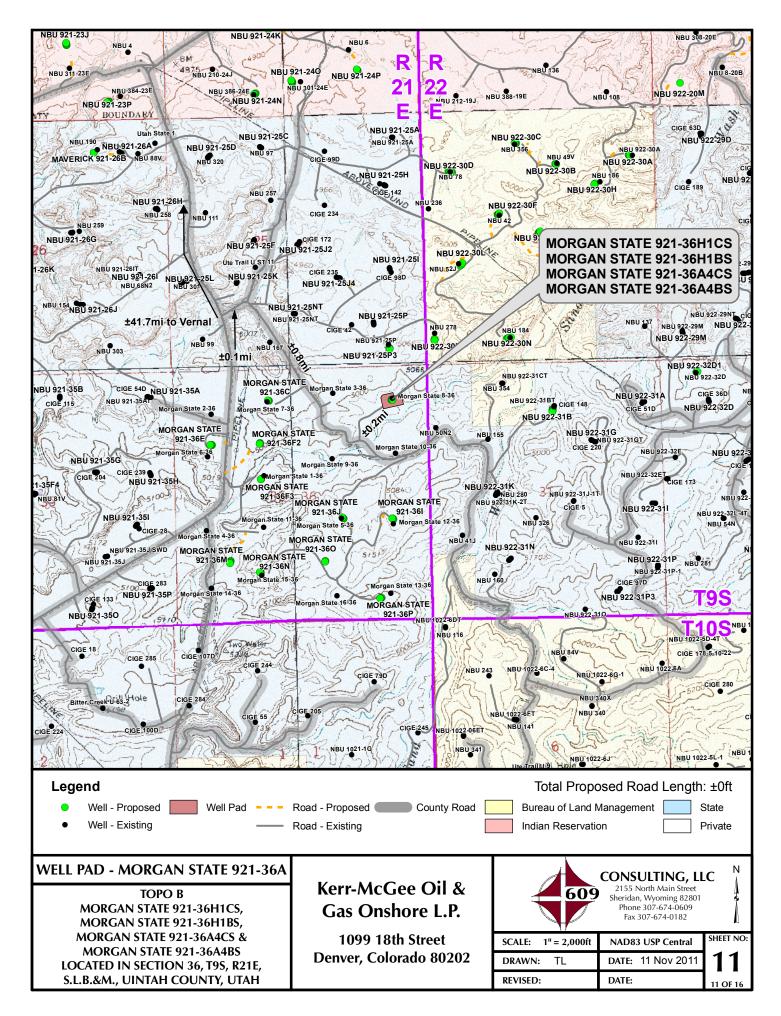
(435) 789-1365

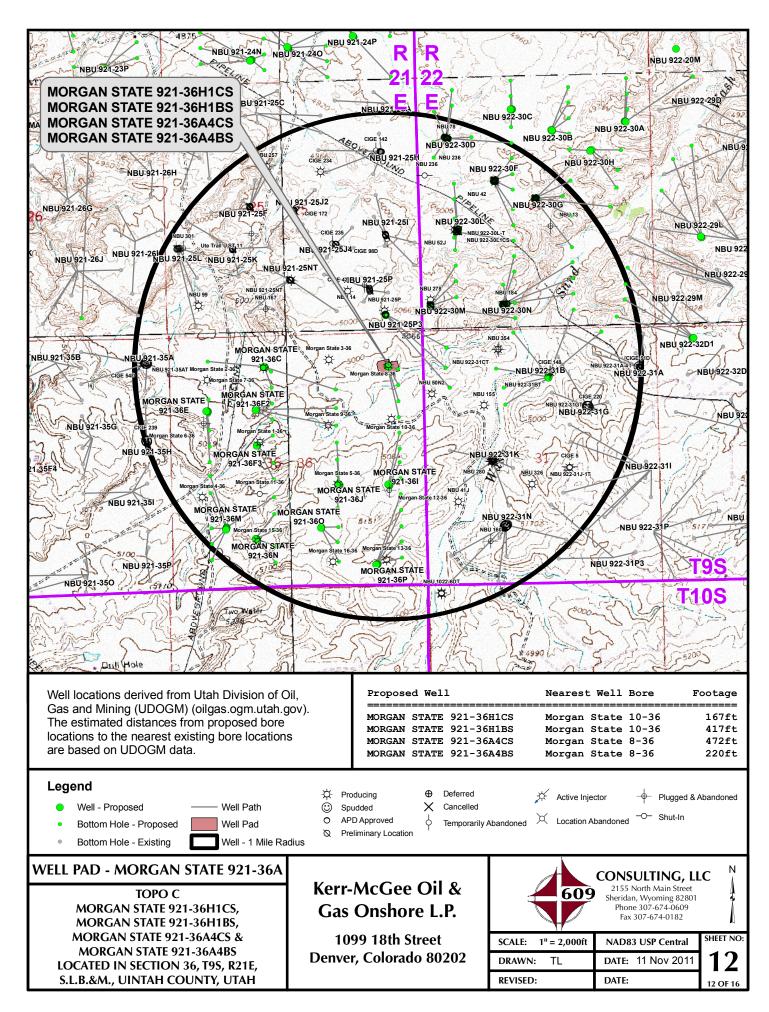
9 OF 16

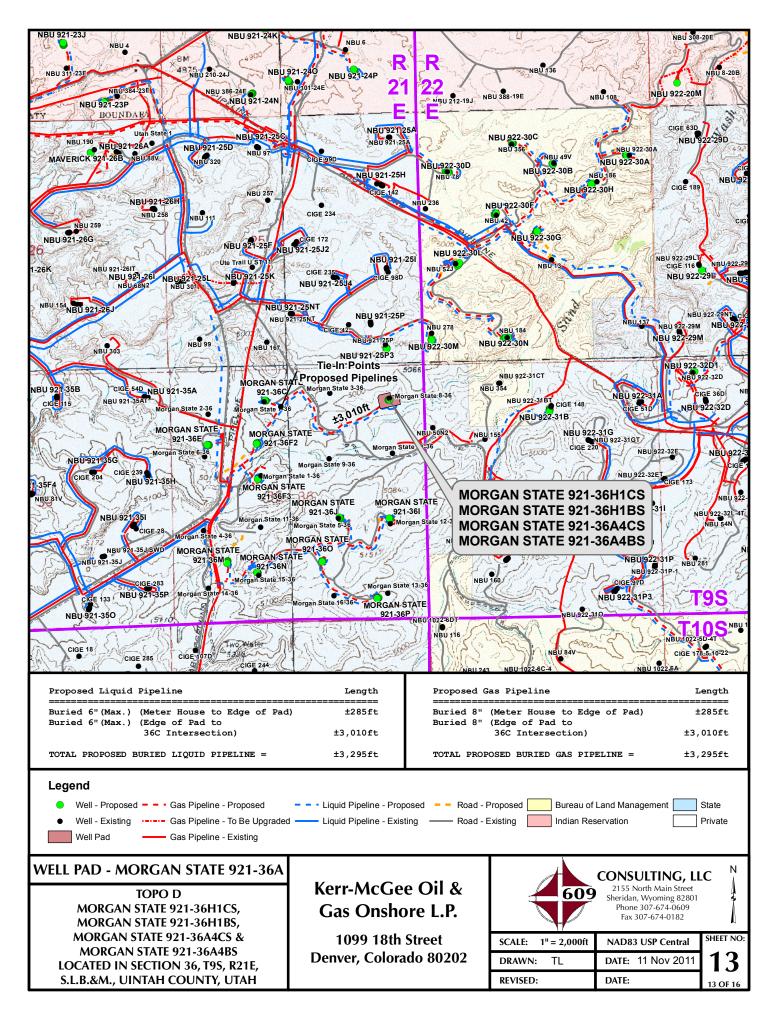
ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

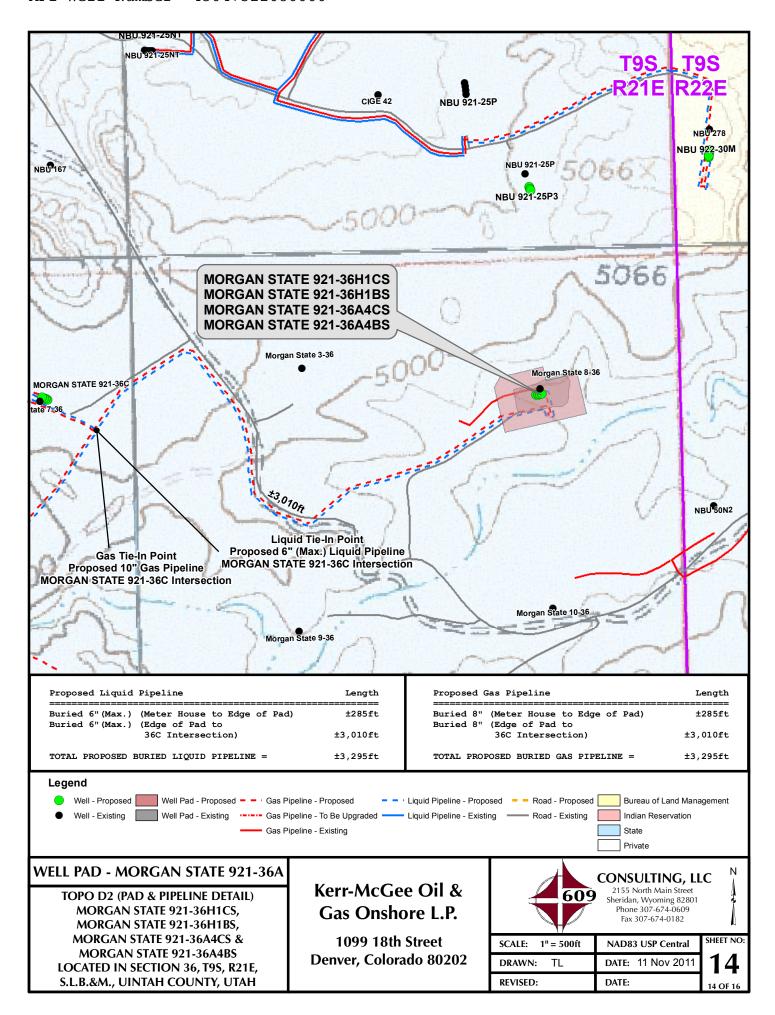
DATE PHOTOS TAKEN: 10-18-11	PHOTOS TAKEN BY: J.W.	SHEET NO:
DATE DRAWN: 10-28-11	DRAWN BY: T.J.R.	9
Date Last Revised:		9 OF 16

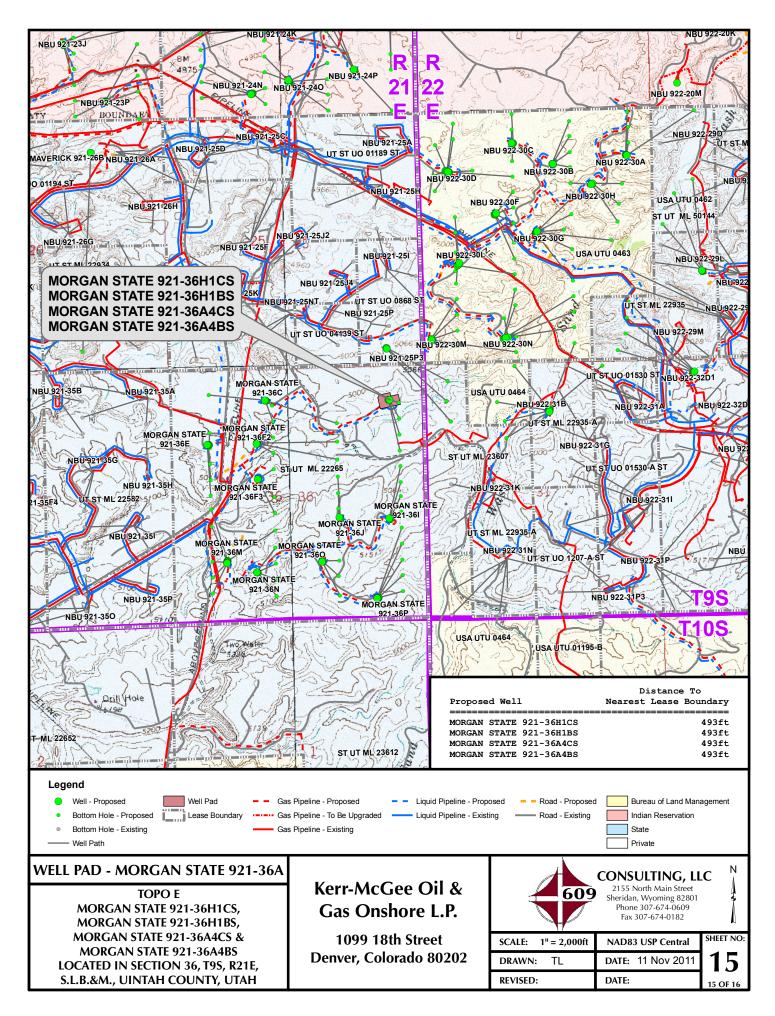












Kerr-McGee Oil & Gas Onshore, LP WELL PAD – MORGAN STATE 921-36A WELLS – MORGAN STATE 921-36H1CS, MORGAN STATE 921-36H1BS, MORGAN STATE 921-36A4CS & MORGAN STATE 921-36A4BS Section 36, T9S, R21E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 18.2 miles to a Class D County Road to the northeast. Exit left and proceed in a northeasterly direction along the Class D County Road approximately 0.1 miles to a second Class D County Road approximately 0.8 miles to a service road to the north. Exit left and proceed in a northerly, then northeasterly direction along the service road approximately 0.2 miles to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 42.8 miles in a southerly direction.

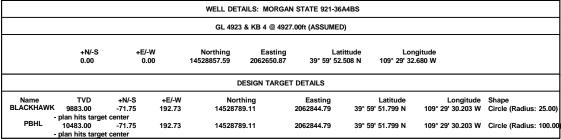
SHEET 16 OF 16

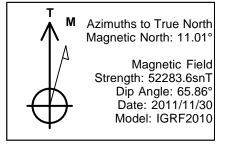
Site: MORGAN STATE 921-36A PAD Well: MORGAN STATE 921-36A4BS

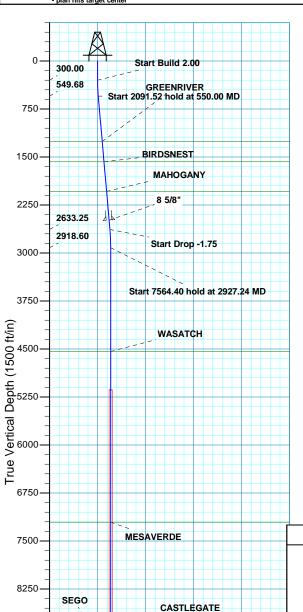
Wellbore: OH

Design: PLAN #1 SURFACE









BLACKHAWK

1500

Vertical Section at 110.42° (1500 ft/in)

TD at 10491.64

750

9000

9750

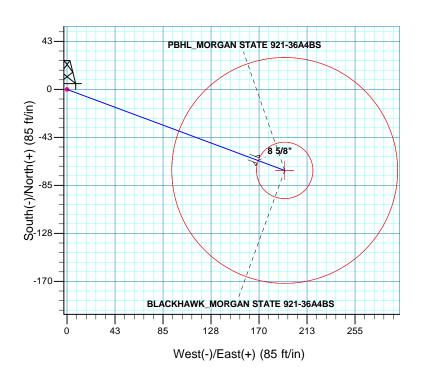
10500

11250

10483.00

Scientific Drilling

Rocky Mountain Operations



MD 0.00 300.00 550.00 2641.52 2927.24 10491.64		549.68	+N/-S 0.00 0.00 -3.80 -67.40 -71.75 -71.75	+E/-W 0.00 0.00 10.22 181.05 192.73 192.73	0.00 0.00 2.00 0.00	0.00 110.42	0.00 0.00 10.90 193.19 205.65 205.65	Target PBHL_M	ORGAN STATE 921-36A4E	3S
					L		FORM	ATION TO	P DETAILS	
PROJECT DETAILS: UT	TAH - UTM (fe	et), NAD27	, Zone 12N	I	1	TVDPath		MDPath	Formation	
Occidents Occidence as a	_					1258.00		1261.02	GREENRIVER	
Geodetic System: Universal Datum: NAD 1927			S Survey F	-eet)		1576.00		1580.24	BIRDSNEST	
Ellipsoid: Clarke 180		JNUSJ				2037.00		2043.00	MAHOGANY	
Zone: Zone 12N		. W/				4539.00		4547.64	WASATCH	
Location: SECTION		• ••,				7206.00		7214.64	MESAVERDE	
System Datum: Mean Sea						9380.00		9388.64	SEGO	
System Datum: weam Sea	Level					9444.00		9452.64	CASTLEGATE	
						9883.00		9891.64	BLACKHAWK	
			CASI	ING DETAIL	LS					
		TVD		MD	Nam	e Size				
		2487.00	2494			8.625				
 ı										

SECTION DETAILS

Plan: PLAN #1 SURFACE (MORGAN STATE 921-36A4BS/OH) Created By: RobertScott Date: 11:41, November 30 2011

RECEIVED:

API Well Number: 43047522680000



US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36A PAD MORGAN STATE 921-36A4BS

OH

Plan: PLAN #1 SURFACE

Standard Planning Report

30 November, 2011



API Well Number: 43047522680000



SDI Planning Report



Database: EDM5000-RobertS-Local Company: US ROCKIES REGION P

US ROCKIES REGION PLANNING
UTAH - UTM (feet), NAD27, Zone 12N
MORGAN STATE 921-36A PAD

Site:MORGAN STATE 921-36A PADWell:MORGAN STATE 921-36A4BS

Wellbore: OH

Project:

Design: PLAN #1 SURFACE

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-36A4BS

GL 4923 & KB 4 @ 4927.00ft (ASSUMED) GL 4923 & KB 4 @ 4927.00ft (ASSUMED)

True

Minimum Curvature

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System: Universal Transverse Mercator (US Survey Feet)

Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: Zone 12N (114 W to 108 W)

Mean Sea Level

Site MORGAN STATE 921-36A PAD, SECTION 36 T9S R21E

Northing: 14,528,850.91 usft Site Position: Latitude: 39° 59' 52.447 N From: Lat/Long Easting: 2,062,621.57 usft Longitude: 109° 29' 33.058 W **Position Uncertainty:** 0.00 ft Slot Radius: **Grid Convergence:** 0.97 13.200 in

System Datum:

Ostion dicertainty. Ost Siot Radius. 15.200 iii Sid Convergence. Ost

Well MORGAN STATE 921-36A4BS, 675 FNL 686 FEL

 Well Position
 +N/-S
 6.19 ft
 Northing:
 14,528,857.60 usft
 Latitude:
 39° 59' 52.508 N

 +E/-W
 29.41 ft
 Easting:
 2,062,650.87 usft
 Longitude:
 109° 29' 32.680 W

Position Uncertainty 0.00 ft Wellhead Elevation: Ground Level: 4,923.00 ft

Wellbore ОН Magnetics **Model Name** Sample Date Declination **Dip Angle** Field Strength (nT) (°) (°) IGRF2010 2011/11/30 11.01 65.86 52.284

PLAN #1 SURFACE Design Audit Notes: Version: Phase: PLAN Tie On Depth: 0.00 Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 110.42

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
550.00	5.00	110.42	549.68	-3.80	10.22	2.00	2.00	0.00	110.42	
2,641.52	5.00	110.42	2,633.25	-67.40	181.05	0.00	0.00	0.00	0.00	
2,927.24	0.00	0.00	2,918.60	-71.75	192.73	1.75	-1.75	0.00	180.00	
10,491.64	0.00	0.00	10,483.00	-71.75	192.73	0.00	0.00	0.00	0.00	PBHL_MORGAN STA



SDIPlanning Report



Database: EDM5000-RobertS-Local
Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 1:

UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36A PAD MORGAN STATE 921-36A4BS

Wellbore: OH

Site:

Well:

Design: PLAN #1 SURFACE

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-36A4BS GL 4923 & KB 4 @ 4927.00ft (ASSUMED) GL 4923 & KB 4 @ 4927.00ft (ASSUMED)

Γrue

Design:	PLAN #1 SUR	FACE							
Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00 100.00 200.00 300.00	0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 100.00 200.00 300.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
Start Build 400.00	2.00 2.00	110.42	399.98	-0.61	1.64	1.75	2.00	2.00	0.00
500.00 550.00		110.42 110.42	499.84 549.68	-2.43 -3.80	6.54 10.22	6.98 10.90	2.00 2.00	2.00 2.00	0.00 0.00
Start 2091.	52 hold at 550.00	MD							
600.00 700.00 800.00	5.00	110.42 110.42 110.42	599.49 699.11 798.73	-5.32 -8.36 -11.41	14.30 22.47 30.64	15.26 23.97 32.69	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
900.00 1,000.00 1,100.00 1,200.00 1,261.02	5.00 5.00 5.00	110.42 110.42 110.42 110.42 110.42	898.35 997.97 1,097.59 1,197.21 1,258.00	-14.45 -17.49 -20.53 -23.57 -25.42	38.80 46.97 55.14 63.31 68.29	41.41 50.12 58.84 67.55 72.87	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
GREENRIV		110.42	1,256.00	-25.42	00.29	12.01	0.00	0.00	0.00
1,300.00 1,400.00 1,500.00 1,580.24	5.00 5.00 5.00	110.42 110.42 110.42 110.42	1,296.83 1,396.45 1,496.07 1,576.00	-26.61 -29.65 -32.69 -35.13	71.48 79.64 87.81 94.37	76.27 84.98 93.70 100.69	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
BIRDSNES		110.12	1,070.00	00.10	01.07	100.00	0.00	0.00	0.00
1,600.00		110.42	1,595.69	-35.73	95.98	102.41	0.00	0.00	0.00
1,700.00 1,800.00 1,900.00 2,000.00 2,043.00	5.00 5.00 5.00 5.00	110.42 110.42 110.42 110.42 110.42	1,695.31 1,794.93 1,894.55 1,994.17 2,037.00	-38.77 -41.81 -44.85 -47.89 -49.20	104.15 112.32 120.48 128.65 132.16	111.13 119.85 128.56 137.28 141.02	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
MAHOGAN	IY								
2,100.00 2,200.00 2,300.00 2,400.00 2,494.72 8 5/8"	5.00 5.00 5.00	110.42 110.42 110.42 110.42 110.42	2,093.78 2,193.40 2,293.02 2,392.64 2,487.00	-50.94 -53.98 -57.02 -60.06 -62.94	136.82 144.99 153.15 161.32 169.06	145.99 154.71 163.42 172.14 180.39	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
2,500.00 2,600.00 2,641.52		110.42 110.42 110.42	2,492.26 2,591.88 2,633.25	-63.10 -66.14 -67.40	169.49 177.66 181.05	180.86 189.57 193.19	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
Start Drop 2,700.00	3.98	110.42	2,691.54	-69.00	185.34	197.77	1.75	-1.75	0.00
2,800.00 2,900.00	0.48	110.42 110.42	2,791.39 2,891.36	-70.89 -71.71	190.41 192.62	203.18	1.75 1.75	-1.75 -1.75	0.00
2,927.24		0.00	2,918.60	-71.75	192.73	205.65	1.75	-1.75	-405.40
3,000.00 3,100.00 3,200.00	0.00	0.00 0.00 0.00	2,991.36 3,091.36 3,191.36	-71.75 -71.75 -71.75	192.73 192.73 192.73	205.65 205.65 205.65	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
3,300.00 3,400.00 3,500.00 3,600.00 3,700.00	0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	3,291.36 3,391.36 3,491.36 3,591.36 3,691.36	-71.75 -71.75 -71.75 -71.75 -71.75	192.73 192.73 192.73 192.73 192.73	205.65 205.65 205.65 205.65 205.65	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00



SDI Planning Report



Database: EDM5000 Company: US ROCI Project: UTAH - U

EDM5000-RobertS-Local

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36A PAD

Well: MORGAN STATE 921-36A4BS

Wellbore: OH

Site:

Design: PLAN #1 SURFACE

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-36A4BS GL 4923 & KB 4 @ 4927.00ft (ASSUMED) GL 4923 & KB 4 @ 4927.00ft (ASSUMED)

True

Design:	PLAN #1 SUR	TACE							
Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,800.00	0.00	0.00	3,791.36	-71.75	192.73	205.65	0.00	0.00	0.00
3,900.00	0.00	0.00	3,891.36	-71.75	192.73	205.65	0.00	0.00	0.00
4,000.00	0.00	0.00	3,991.36	-71.75	192.73	205.65	0.00	0.00	0.00
4,100.00	0.00	0.00	4,091.36	-71.75	192.73	205.65	0.00	0.00	0.00
4,200.00	0.00	0.00	4,191.36	-71.75	192.73	205.65	0.00	0.00	0.00
4,300.00	0.00	0.00	4,291.36	-71.75	192.73	205.65	0.00	0.00	0.00
4,400.00	0.00	0.00	4,391.36	-71.75	192.73	205.65	0.00	0.00	0.00
4,500.00	0.00	0.00	4,491.36	-71.75	192.73	205.65	0.00	0.00	0.00
4,547.64	0.00	0.00	4,539.00	-71.75	192.73	205.65	0.00	0.00	0.00
WASATCH 4,600.00	0.00	0.00	4,591.36	-71.75	192.73	205.65	0.00	0.00	0.00
4,700.00	0.00	0.00	4,691.36	-71.75	192.73	205.65	0.00	0.00	0.00
4,800.00	0.00	0.00	4,791.36	-71.75	192.73	205.65	0.00	0.00	0.00
4,900.00	0.00	0.00	4,891.36	-71.75	192.73	205.65	0.00	0.00	0.00
5,000.00	0.00	0.00	4,991.36	-71.75	192.73	205.65	0.00	0.00	0.00
5,100.00	0.00	0.00	5,091.36	-71.75	192.73	205.65	0.00	0.00	0.00
5,200.00	0.00	0.00	5,191.36	-71.75	192.73	205.65	0.00	0.00	0.00
5,300.00	0.00	0.00	5,291.36	-71.75	192.73	205.65	0.00	0.00	0.00
5,400.00	0.00	0.00	5,391.36	-71.75	192.73	205.65	0.00	0.00	0.00
5,500.00	0.00	0.00	5,491.36	-71.75	192.73	205.65	0.00	0.00	0.00
5,600.00	0.00	0.00	5,591.36	-71.75	192.73	205.65	0.00	0.00	0.00
5,700.00	0.00	0.00	5,691.36	-71.75	192.73	205.65	0.00	0.00	0.00
5,800.00	0.00	0.00	5,791.36	-71.75	192.73	205.65	0.00	0.00	0.00
5,900.00	0.00	0.00	5,891.36	-71.75	192.73	205.65	0.00	0.00	0.00
6,000.00	0.00	0.00	5,991.36	-71.75	192.73	205.65	0.00	0.00	0.00
6,100.00	0.00	0.00	6,091.36	-71.75	192.73	205.65	0.00	0.00	0.00
6,200.00	0.00	0.00	6,191.36	-71.75	192.73	205.65	0.00	0.00	0.00
6,300.00	0.00	0.00	6,291.36	-71.75	192.73	205.65	0.00	0.00	0.00
6,400.00	0.00	0.00	6,391.36	-71.75	192.73	205.65	0.00	0.00	0.00
6,500.00	0.00	0.00	6,491.36	-71.75	192.73	205.65	0.00	0.00	0.00
6,600.00	0.00	0.00	6,591.36	-71.75	192.73	205.65	0.00	0.00	0.00
6,700.00	0.00	0.00	6,691.36	-71.75	192.73	205.65	0.00	0.00	0.00
6,800.00	0.00	0.00	6,791.36	-71.75	192.73	205.65	0.00	0.00	0.00
6,900.00	0.00	0.00	6,891.36	-71.75	192.73	205.65	0.00	0.00	0.00
7,000.00	0.00	0.00	6,991.36	-71.75	192.73	205.65	0.00	0.00	0.00
7,100.00	0.00	0.00	7,091.36	-71.75	192.73	205.65	0.00	0.00	0.00
7,200.00 7,200.00 7,214.64	0.00 0.00 0.00	0.00 0.00 0.00	7,191.36 7,206.00	-71.75 -71.75 -71.75	192.73 192.73	205.65 205.65	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
MESAVERDE	=								
7,300.00	0.00	0.00	7,291.36	-71.75	192.73	205.65	0.00	0.00	0.00
7,400.00	0.00	0.00	7,391.36	-71.75	192.73	205.65	0.00	0.00	0.00
7,500.00	0.00	0.00	7,491.36	-71.75	192.73	205.65	0.00	0.00	0.00
7,600.00	0.00	0.00	7,591.36	-71.75	192.73	205.65	0.00	0.00	0.00
7,700.00	0.00	0.00	7,691.36	-71.75	192.73	205.65	0.00	0.00	0.00
7,800.00	0.00	0.00	7,791.36	-71.75	192.73	205.65	0.00	0.00	0.00
7,900.00	0.00	0.00	7,891.36	-71.75	192.73	205.65	0.00	0.00	0.00
8,000.00	0.00	0.00	7,991.36	-71.75	192.73	205.65	0.00	0.00	0.00
8,100.00	0.00	0.00	8,091.36	-71.75	192.73	205.65	0.00	0.00	0.00
8,200.00	0.00	0.00	8,191.36	-71.75	192.73	205.65	0.00	0.00	0.00
8,300.00	0.00	0.00	8,291.36	-71.75	192.73	205.65	0.00	0.00	0.00
8,400.00	0.00	0.00	8,391.36	-71.75	192.73	205.65	0.00	0.00	0.00
8,500.00	0.00	0.00	8,491.36	-71.75	192.73	205.65	0.00	0.00	0.00
8,600.00	0.00	0.00	8,591.36	-71.75	192.73	205.65	0.00	0.00	0.00
8,700.00	0.00	0.00	8,691.36	-71.75	192.73	205.65	0.00	0.00	0.00



SDI Planning Report



Database: Company: Project: EDM5000-RobertS-Local

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36A PAD

Site:MORGAN STATE 921-36A PADWell:MORGAN STATE 921-36A4BS

Wellbore: OH

Design: PLAN #1 SURFACE

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-36A4BS GL 4923 & KB 4 @ 4927.00ft (ASSUMED)

GL 4923 & KB 4 @ 4927.00ft (ASSUMED) True

nigii.									
nned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,800.00 8,900.00 9,000.00	0.00 0.00 0.00	0.00 0.00 0.00	8,791.36 8,891.36 8,991.36	-71.75 -71.75 -71.75	192.73 192.73 192.73	205.65 205.65 205.65	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
9,100.00 9,200.00 9,300.00 9,388.64	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	9,091.36 9,191.36 9,291.36 9,380.00	-71.75 -71.75 -71.75 -71.75	192.73 192.73 192.73 192.73	205.65 205.65 205.65 205.65	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
SEGO 9,400.00	0.00	0.00	9,391.36	-71.75	192.73	205.65	0.00	0.00	0.00
9,452.64 CASTLEGAT	0.00	0.00	9,444.00	-71.75	192.73	205.65	0.00	0.00	0.00
9,500.00 9,600.00 9,700.00 9,800.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	9,491.36 9,591.36 9,691.36 9,791.36	-71.75 -71.75 -71.75 -71.75	192.73 192.73 192.73 192.73	205.65 205.65 205.65 205.65	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
9,891.64	0.00	0.00	9,883.00	-71.75	192.73	205.65	0.00	0.00	0.00
9,900.00 10,000.00 10,100.00 10,200.00 10,300.00 10,400.00	K - BLACKHAW 0.00 0.00 0.00 0.00 0.00 0.00	K_MORGAN ST 0.00 0.00 0.00 0.00 0.00 0.00	9,891.36 9,891.36 9,991.36 10,091.36 10,191.36 10,291.36 10,391.36	-71.75 -71.75 -71.75 -71.75 -71.75 -71.75	192.73 192.73 192.73 192.73 192.73 192.73	205.65 205.65 205.65 205.65 205.65 205.65	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
10,491.64	0.00 0.00 64 - PBHL MOR	0.00	10,483.00	-71.75	192.73	205.65	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BLACKHAWK_MORGAI - plan hits target cent - Circle (radius 25.00		0.00	9,883.00	-71.75	192.73	14,528,789.12	2,062,844.78	39° 59' 51.799 N	109° 29' 30.203 W
PBHL_MORGAN STATE - plan hits target cent - Circle (radius 100.0	ter	0.00	10,483.00	-71.75	192.73	14,528,789.12	2,062,844.78	39° 59' 51.799 N	109° 29' 30.203 W

Casing Points							
	Measured Depth	Vertical Depth			Casing Diameter	Hole Diameter	
	(ft)	(ft)		Name	(in)	(in)	
	2,494.72	2,487.00	8 5/8"		8.625	11.000	

API Well Number: 43047522680000



SDI Planning Report



Database: Company: Project: Site:

Well:

EDM5000-RobertS-Local

MORGAN STATE 921-36A4BS

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36A PAD

Wellbore: ОН

Design: PLAN #1 SURFACE Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-36A4BS

GL 4923 & KB 4 @ 4927.00ft (ASSUMED) GL 4923 & KB 4 @ 4927.00ft (ASSUMED)

Formations								
	Measured Depth (ft)	Vertical Depth (ft)		Name	Lithology	Dip (°)	Dip Direction (°)	
	1,261.02	1,258.00	GREENRIVER					
	1,580.24	1,576.00	BIRDSNEST					
	2,043.00	2,037.00	MAHOGANY					
	4,547.64	4,539.00	WASATCH					
	7,214.64	7,206.00	MESAVERDE					
	9,388.64	9,380.00	SEGO					
	9,452.64	9,444.00	CASTLEGATE					
	9,891.64	9,883.00	BLACKHAWK					

Plan Annotations				
Measured	Vertical	Local Coor	dinates	
Depth	Depth	+N/-S	+E/-W	
(ft)	(ft)	(ft)	(ft)	Comment
300.00	300.00	0.00	0.00	Start Build 2.00
550.00	549.68	-3.80	10.22	Start 2091.52 hold at 550.00 MD
2,641.52	2,633.25	-67.40	181.05	Start Drop -1.75
2,927.24	2,918.60	-71.75	192.73	Start 7564.40 hold at 2927.24 MD
10,491.64	10,483.00	-71.75	192.73	TD at 10491.64

Surface Use Plan of Operations

Morgan State 921-36A4BS/ 921-36A4CS/ 921-36H1BS/ 921-36H1CS

1 of 8

MORGAN STATE 921-36A4BS			
Surface:	675 FNL / 686 FEL	NENE	Lot
BHL:	746 FNL / 493 FEL	NENE	Lot
MORGAN STATE 921-36A4CS			
Surface:	677 FNL / 696 FEL	NENE	Lot
BHL:	1077 FNL / 493 FEL	NENE	Lot
MC	DRGAN STATE 921-36H1	BS	
Surface:	679 FNL / 706 FEL	NENE	Lot
BHL:	1408 FNL / 493 FEL	SENE	Lot
MC	DRGAN STATE 921-36H1	CS	
Surface:	681 FNL / 715 FEL	NENE	Lot

SENE

Lot

MADE AN CTATE ON 1 24 A 4DC

Pad: MORGAN STATE 921-36A PAD

1739 FNL / 493 FEL

BHL:

Section 36 T9S R21E Mineral Lease: ML-22265

Uintah County, Utah

Operator: Kerr-McGee Oil & Gas Onshore LP

This SUPO contains surface operating procedures for Kerr-McGee Oil & Gas Onshore LP (KMG), a wholly owned subsidiary of Anadarko Petroleum Corporation (APC) pertaining to actions that involve the State of Utah School and Institutional Trust Lands Administration (SITLA) in the development of minerals leased to APC/KMG (including but not limited to, APDs/SULAs/ROEs/ROWs and/or easements.)

See associated Utah Division of Oil, Gas, and Mining (UDOGM) Form 3(s), plats, maps, and other attachments for site-specific information on projects represented herein.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

A. Existing Roads:

Existing roads consist of county and improved/unimproved lease roads. KMG will maintain existing roads in a condition that is the same as or better than before operations began and in a safe and usable condition. Maintenance of existing roads will continue until final abandonment and reclamation of well pads and/or other facilities. The road maintenance may include, but is not limited to, blading, ditching, culvert installation/cleanout, surfacing, and dust control.

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each other to the maximum extent possible; in no case will the maximum disturbance width of the access road and utility corridors exceed 50', unless otherwise approved.

B. Planned Access Roads:

No new access road is proposed. (see Topo Map B). Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

If there are roads that are new or to be reconstructed, they will be located, designed, and maintained to meet the standards of SITLA and other commonly accepted Best Management Practices (BMPs). If a new road/corridor were to cross a water of the United States, KMG will adhere to the requirements of applicable Nationwide or Individual Permits of the Department of Army Corps of Engineers.

During the onsite, turnouts, major cut and fills, culverts, bridges, gates, cattle guards, low water crossings, or modifications needed to existing infrastructure/facilities were determined, as applicable, are typically shown on attached Exhibits and Topo maps.

C. Location of Existing and Proposed Facilities:

This pad will expand the existing pad for the Morgan State 8-36. The Morgan State 8-36 well location is a vertical producing well according to Utah Division of Oil, Gas and Mining (UDOGM) records as of December 5, 2011.

Production facilities (see Well Pad Design Summary and Facilities Diagram):

Production facilities will be installed on the disturbed portion of the well pad and may include bermed components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed of compacted subsoil or corrugated metal, impervious, designed to hold 110% of the capacity of the largest tank, and be independent of the back cut. All permanent (on-site six months or longer) above ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with SITLA.

Gathering Facilities:

The following pipeline transmission facilities will apply if the well is productive (see Topo D):

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is $\pm 3,295$ ' and the individual segments are broken up as follows:

 $\pm 285'~(0.05~\text{miles})$ –New 8" buried gas pipeline from the meter to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.

±3,010' (0.6 miles) –New 8" buried gas pipeline from the edge of pad to the 921-36C intersection. Please refer to Topo D2 - Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is $\pm 3,295$ ' and the individual segments are broken up as follows:

±285' (0.05 miles) –New 6" buried liquid pipeline from the separator to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.

 $\pm 3,010'$ (0.6 miles) –New 6" buried liquid pipeline from the edge of pad to the 921-36C intersection. Please refer to Topo D2 - Pad and Pipeline Detail.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

The proposed pipelines will be buried and will include gas gathering and liquid gathering pipelines in the same trench. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. KMG requests a permanent 30' right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, KMG requests a temporary 45' construction right-of-way 30' permanent right-of-way.

The proposed trench width for the pipeline would range from 18-48 inches and will be excavated to a depth of 48 to 60 inches of normal soil cover or 24 inches of cover in consolidated rock. During construction blasting may occur along the proposed right-of-way where trenching equipment cannot cut into the bedrock. Large debris and rocks removed from the earth during trenching and blasting that could not be returned to the trench would be distributed evenly and naturally in the project area. The proposed pipelines will be pressure tested pneumatically (depending on size) or with fluids (either fresh or produced). If fluids are used, there will be no discharge to the surface.

Pipeline signs will be installed along the right-of-way to indicate the pipeline proximity and ownership, as well as to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

D. <u>Location and Type of Water Supply</u>:

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

E. Source of Construction Materials:

Construction operations will typically be completed with native materials found on location. If needed, construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source and described in subsequent Sundry requests. No construction materials will be removed from State lands without prior approval from SITLA.

F. Methods for Handling Waste Materials:

Should the well be productive, produced water will be contained in a water tank and will be transported by pipeline and/or truck to an approved disposal sites facilities and/or Salt Water Disposal (SWD) injection well. Currently, those facilities are:

RNI in Sec. 5 T9S R22E Ace Oilfield in Sec. 2 T6S R20E MC&MC in Sec. 12 T6S R19E Pipeline Facility in Sec. 36 T9S R20E

Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Bonanza Evaporation Pond in Sec. 2 T10S R23E

Ouray #1 SWD in Sec. 1 T9S R21E NBU 159 SWD in Sec. 35 T9S R21E CIGE 112D SWD in Sec. 19 T9S R21E CIGE 114 SWD in Sec. 34 T9S R21E NBU 921-34K SWD in Sec. 34 T9S R21E NBU 921-33F SWD in Sec. 33 T9S R21E NBU 921-34L SWD in Sec. 34 T9S R21E

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

Unless otherwise approved, no oil or other oil based drill additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water, biodegradable polymer soap, bentonite clay, and /or non-toxic additives will be used in the system.

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions, or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be release into the pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternative is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as the hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods. (e.g. solidification)

Any additional pits necessary for subsequent operations, such as temporary flare pits, or workover pits, will contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of the work.

For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift. Reserve pit liners will be cut off or folded as near to the mud surface as possible and as safety considerations allow and buried on location.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Any undesirable event, including accidental release of fluids, or release in excess of reportable quantities, will be managed according to the notification requirements of UDOGMs "Reporting Oil and Gas Undesirable Events" rule. Where State wells are participatory to a Federal agreement, according to NTL-3A, the appropriate Federal agencies will be notified.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

G. Ancillary Facilities:

None are anticipated.

H. Well Site Layout (see Well Pad Design Summary):

The location, orientation and aerial extent of each drill pad; reserve/completion/flare pit; access road ingress/ egress points, drilling rig, dikes/ditches, existing wells/infrastructure; proposed cuts and fills; and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

Coordinates are provided in the National Spatial Reference System, North American Datum, 1927 (NAD27) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. Plans for Reclamation of the Surface:

Surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. This reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation includes pit closure, re-contouring (where possible), soil bed preparation, topsoil placement, seeding, and/or weed control.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

Final Reclamation

Final reclamation will be performed for newly drilled unproductive wells and/or at the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by KMG. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring, final grading will be conducted over the entire surface of the well site and access road. Where practical, the area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and surface materials will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep perpendicular to the natural flow of water.

All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to UDOGM.

Seeding and Measures Common to Interim and Final Reclamation

Reclaimed areas may be fenced to exclude grazing and encourage re-vegetation.

On slopes where severe erosion can become a problem and the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. The slope will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to, erosion control blankets and bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Seeding will occur year-round as conditions allow. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The site specific seed mix will be provided by SITLA.

J. Surface/Mineral Ownership:

SITLA 675 East 500 South, Suite 500 Salt Lake City, UT 84102

L. Other Information:

None

Morgan State 921-36A4BS/ 921-36A4CS/ 921-36H1BS/ 921-36H1CS

M. Lessee's or Operators' Representative & Certification:

Danielle Piernot Regulatory Analyst II Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6156 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

December 19, 2011
Danielle Piernot

December 19, 2011



Kerr-McGee Oil & Gas Onshore LP PO Box 173779 DENVER, CO 80217-3779

December 14, 2011

Ms. Diana Mason Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11 Morgan State 921-36A4BS

T9S-R21E

Section 36: NENE (Surface), NENE (Bottom Hole)

Surface: 675' FNL, 686' FEL Bottom Hole: 746' FNL, 493' FEL

Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling.

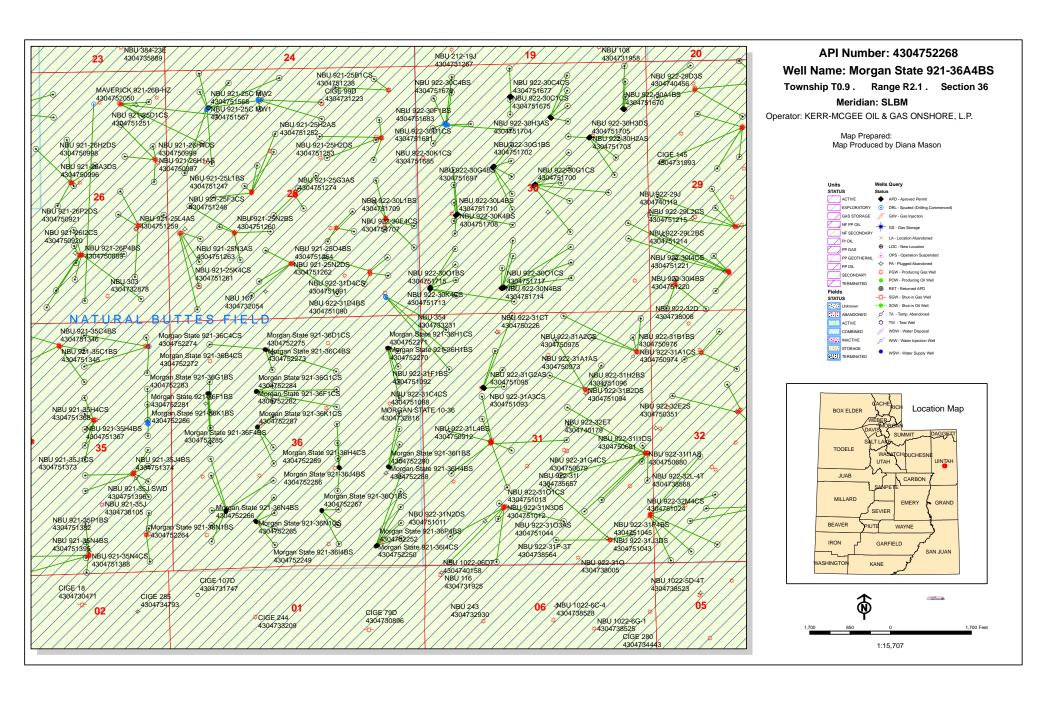
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing roads and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information, Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

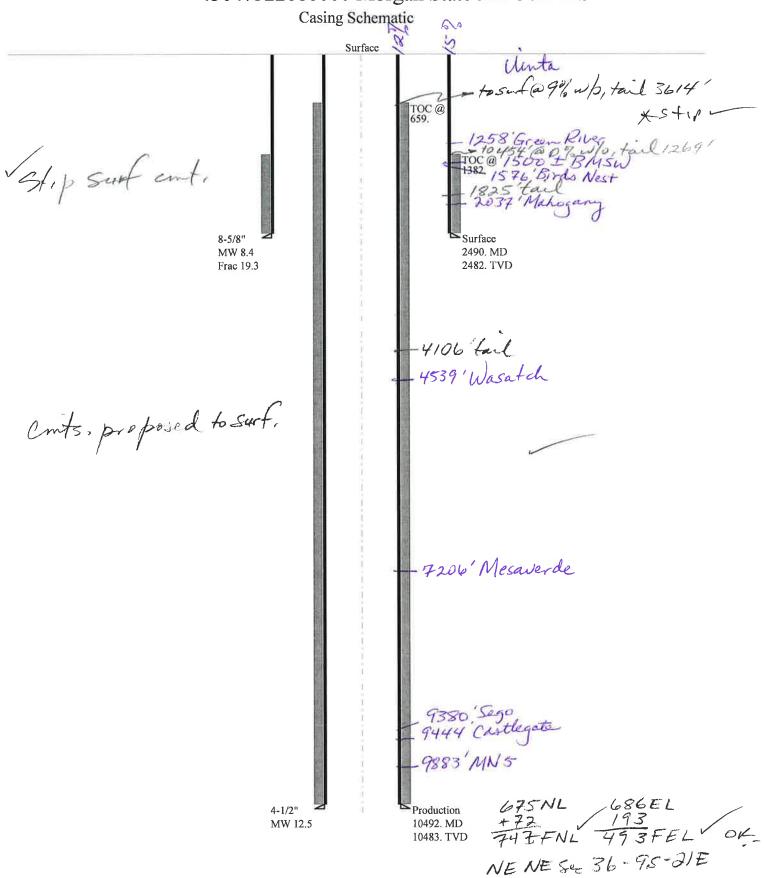
Joe Matney Sr. Staff Landman



BOPE REVIEW KERR-MCGEE OIL & GAS ONSHORE, L.P. Morgan State 921-36A4BS 43047522680000

Well Name		KERR-MCGEE C	IL & GAS ONSHO	RE, L.P. Morgan	State 921-	36A4B	<u>3</u>	
String		Surf	Prod		i I		<u> </u>	
Casing Size(")		8.625	4.500				<u>-</u>	
Setting Depth (TVD)		2482	10483				i	
Previous Shoe Setting Dept	h (TVD)	0	2482					
Max Mud Weight (ppg)		8.4	13.0				i	
BOPE Proposed (psi)		500	5000				<u>-</u>	
Casing Internal Yield (psi)		3390	10690				i	
Operators Max Anticipated	Pressure (psi)	6919	12.7				i	
Calculations		G 6G4 :				(25		
Calculations Max BHP (psi)		Surf Stri	ong 052*Setting D)enth*MW-		.625		
Wax BIII (psi)		.0	52 Setting L	reptii · M w =	1084	_	ROPE Ade	quate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		Max BH	P-(0.12*Setti	ing Depth)=	786	_	NO NO	air drill
MASP (Gas/Mud) (psi)			P-(0.22*Setti		ľ	_		
(Out)(IIIII) (Poi)		mux BII	- (0.22 Betti	5 5 cptii)-	538		*Can Full	Reasonable depth in area Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(S	etting Depth -	- Previous Sh	noe Depth)=	538		NO NO	1
Required Casing/BOPE Tes		J 1			2373	=	psi	11
*Max Pressure Allowed @		Shoe=						sumes 1psi/ft frac gradient
		~			0			same spontering gradient
Calculations		Prod Stri	ing		4	.500	"	
Max BHP (psi)		.0	52*Setting D	epth*MW=	7087			
							BOPE Ade	quate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		Max BH	P-(0.12*Setti	ing Depth)=	5829		NO	
MASP (Gas/Mud) (psi)		Max BH	P-(0.22*Setti	ing Depth)=	4781		YES	OK
							*Can Full	Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(S	etting Depth	- Previous Sh	ioe Depth)=	5327		NO	Reasonable
Required Casing/BOPE Tes	st Pressure=				5000		psi	
*Max Pressure Allowed @	Previous Casing	Shoe=			2482		psi *As	sumes 1psi/ft frac gradient
Calculations		String					"	
Max BHP (psi)			52*Setting D	Depth*MW=		<u> </u>		
-					ļ		BOPE Ade	equate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		Max BH	P-(0.12*Setti	ing Depth)=		=	NO	i
MASP (Gas/Mud) (psi)		Max BH	P-(0.22*Setti	ing Depth)=	H	=	NO	
					-		*Can Full	Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(S	etting Depth -	- Previous Sh	noe Depth)=			NO	
Required Casing/BOPE Tes	st Pressure=					=	psi	
*Max Pressure Allowed @	Previous Casing	Shoe=				=	psi *As	sumes 1psi/ft frac gradient
		g					"	
Calculations		String		N 41- * M M M	-	_	<u>"</u>	
Max BHP (psi)		.0	052*Setting D	peptn*M w =	<u> </u>		DODE Ada	anata Fan Duilling And Satting Casing at Douth?
MASP (Gas) (psi)		May RH	P-(0.12*Setti	ing Denth)-	-	_		equate For Drilling And Setting Casing at Depth?
-					H	4	NO	
MASP (Gas/Mud) (psi)		мах вн	P-(0.22*Setti	ng Deptn)=	<u> </u>		*Con Full	Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP- 22*(S	etting Denth .	- Previous Sh	noe Denth)-		i		Expected 1 ressure De Heiu At Frevious 500e?
Required Casing/BOPE Tes		2 сриг			<u> </u>	_	psi	
*Max Pressure Allowed @		Shoo-			H	4		sumes 1psi/ft frac gradient
maa i i coouie Alloweu @	LIEVIOUS CASING	DHUC-			II.		psi *As	sumes thoutt true dianient

43047522680000 Morgan State 921-36A4BS



Well name:

43047522680000 Morgan State 921-36A4BS

Operator:

KERR-MCGEE OIL & GAS ONSHORE, L.P.

Project ID:

String type: Surface

Design parameters:

43-047-52268

Location:

UINTAH

COUNTY

Environment: Minimum design factors:

Collapse: **Collapse**

8.400 ppg Mud weight:

Design is based on evacuated pipe.

Design factor 1.125

H2S considered? Surface temperature: No 74 °F

Bottom hole temperature: 109 °F 1.40 °F/100ft Temperature gradient:

Minimum section length:

100 ft

Burst:

Design factor

1.00 Cement top: 1,382 ft

<u>Burst</u>

Max anticipated surface

No backup mud specified.

pressure: Internal gradient:

Calculated BHP

2,184 psi 0.120 psi/ft

2,482 psi

Tension:

1.80 (J) 8 Round STC: 8 Round LTC: 1.70 (J)

1.60 (J) Buttress: Premium: 1.50 (J) Body yield: 1.50 (B)

Tension is based on air weight. Neutral point: 2,181 ft Directional Info - Build & Drop

Kick-off point 300 ft Departure at shoe: 180 ft Maximum dogleg: 2 °/100ft 5 °

Inclination at shoe: Re subsequent strings:

Next setting depth: 10,483 ft Next mud weight: 13.000 ppg Next setting BHP: 7,080 psi 19.250 ppg

Fracture mud wt: Fracture depth: Injection pressure:

2,482 ft 2,482 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	2490	8.625	28.00	I-55	LT&C	2482	2490	7.892	98604
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	1083	1880	1.736	2482	3390	1.37	69.5	348	5.01 J

Prepared by: Helen Sadik-Macdonald Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: February 27,2012 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2482 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

43047522680000 Morgan State 921-36A4BS Well name:

KERR-MCGEE OIL & GAS ONSHORE, L.P. Operator:

Project ID: Production String type: 43-047-52268

UINTAH COUNTY Location:

Environment: Minimum design factors: Design parameters: H2S considered? Collapse Collapse: No Surface temperature: 74 °F 1.125 Mud weight: 12.500 ppg Design factor Bottom hole temperature: 221 °F Design is based on evacuated pipe. Temperature gradient: 1.40 °F/100ft 100 ft Minimum section length: Burst: 1.00 Cement top: 659 ft Design factor Burst Max anticipated surface 4,501 psi pressure: Internal gradient: 0.220 psi/ft Tension: Directional Info - Build & Drop 1.80 (J) 6,807 psi 8 Round STC: Kick-off point 300 ft Calculated BHP 1.80 (J) Departure at shoe: 206 ft 8 Round LTC: 1.60 (J) Maximum dogleg: 2 °/100ft Buttress: No backup mud specified. 1.50 (J) Inclination at shoe: 0° Premium: 1.60 (B) Body yield:

> Tension is based on air weight. Neutral point: 8.533 ft

Estimated cost: 158,460 (\$)

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
2	5000	4.5	11.60	HCP-110	DQX	4991	5000	3.875	132000
1	5492	4.5	11.60	HCP-110	LT&C	10483	10492	3.875	26460
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
2	3241	8138	2.511	5599	10690	1.91	121.6	367.2	3.02 B 4.38 J

Prepared Helen Sadik-Macdonald Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: February 27,2012 Salt Lake City, Utah

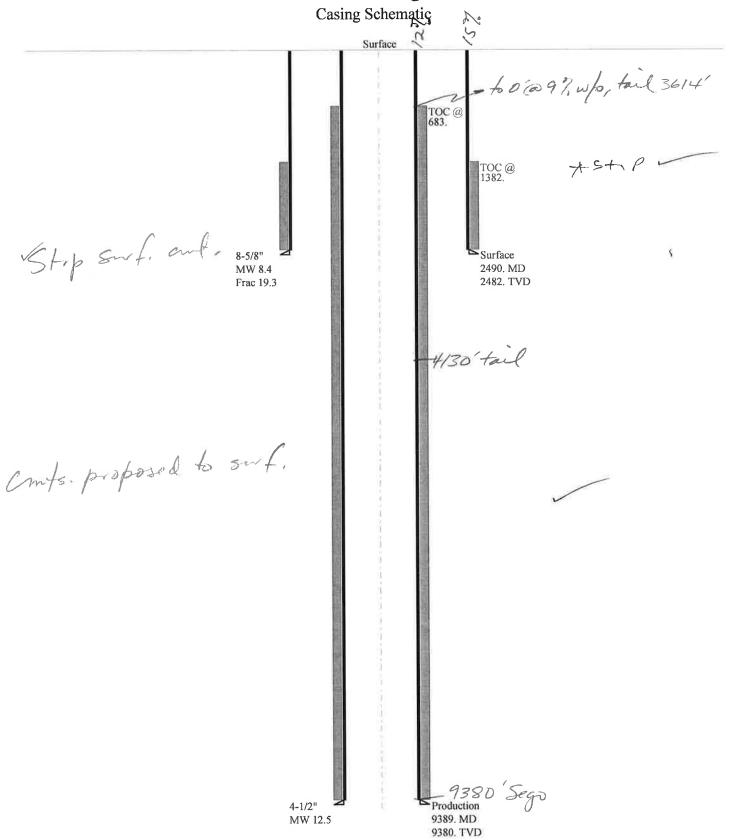
Remarks:

Collapse is based on a vertical depth of 10483 ft, a mud weight of 12.5 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

43047522680000 Morgan State 921-36A4BS



43047522680000 Morgan State 921-36A4BS Well name:

KERR-MCGEE OIL & GAS ONSHORE, L.P. Operator:

Surface String type:

UINTAH COUNTY Location:

Project ID: 43-047-52268

Fracture depth:

Injection pressure:

2,482 ft

2,482 psi

Design parameters: Collapse Mud weight: Design is based on evacu	8.400 ppg ated pipe.	Minimum design Collapse: Design factor	factors: 1.125	Environment: H2S considered? Surface temperature: Bottom hole temperature: Temperature gradient: Minimum section length:	No 74 °F 109 °F 1.40 °F/100ft 100 ft
		<u>Burst:</u> Design factor	1.00	Cement top:	1,382 ft
<u>Burst</u>					
Max anticipated surface					
pressure:	2,184 psi			D: 45 11.5 D 21.1	0 D
Internal gradient:	0.120 psi/ft	<u>Tension:</u>		Directional Info - Build	•
Calculated BHP	2,482 psi	8 Round STC:	1.80 (J)	Kick-off point	300 ft
		8 Round LTC:	1.70 (J)	Departure at shoe:	180 ft
No backup mud specified		Buttress:	1.60 (J)	Maximum dogleg:	2 °/100ft
, to such approximate		Premium:	1.50 (J)	Inclination at shoe:	5°
		Body yield:	1.50 (B)	Re subsequent strings:	
		Dody yiola.	(=)	Next setting depth:	9.380 ft
		Tension is based on	air weight	Next mud weight:	12.500 ppg
		Neutral point:	2.181 ft	Next setting BHP:	6,091 psi
		Neutral politi.	2,10111	Fracture mud wt:	19.250 ppg
				i racture muu wt.	13.200 ppg

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	2490	8.625	28.00	I-55	LT&C	2482	2490	7.892	98604
Run Seq	Collapse Load (psi) 1083	Collapse Strength (psi) 1880	Collapse Design Factor 1.736	Burst Load (psi) 2482	Burst Strength (psi) 3390	Burst Design Factor 1.37	Tension Load (kips) 69.5	Tension Strength (kips) 348	Tension Design Factor 5.01 J

Prepared

Helen Sadik-Macdonald

Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: February 27,2012 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2482 ft, a mud weight of 8.4 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

43047522680000 Morgan State 921-36A4BS Well name:

KERR-MCGEE OIL & GAS ONSHORE, L.P. Operator:

Project ID: Production String type: 43-047-52268

UINTAH COUNTY Location:

> Minimum design factors: **Environment:**

Collapse: Collapse

12.500 ppg Design factor Mud weight: Internal fluid density: 1.000 ppg

74 °F 1.125 Surface temperature: 205 °F Bottom hole temperature: Temperature gradient: 1.40 °F/100ft

H2S considered?

Kick-off point

Departure at shoe:

Minimum section length: 100 ft

Directional Info - Build & Drop

No

683 ft

300 ft

206 ft

Burst:

1.00 Cement top: Design factor

Burst

Max anticipated surface

Design parameters:

pressure: 4,027 psi

Internal gradient: 0.220 psi/ft Calculated BHP 6,091 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J) 1.80 (J) 8 Round LTC: 1.60 (J) Buttress:

Premium: Body yield:

Tension is based on air weight. Neutral point: 7.636 ft

Estimated cost: 189,935 (\$)

Maximum dogleg: 2 °/100ft 0° 1.50 (J) Inclination at shoe: 1.60 (B)

Run	Segment		Nominal		End	True Vert	Measured	Drift	Est.
Seq	Length	Size	Weight	Grade	Finish	Depth	Depth	Diameter	Cost
•	(ft)	(in)	(lbs/ft)			(ft)	(ft)	(in)	(\$)
2	5000	4.5	11.60	1-80	DQX	4991	5000	3.875	132000
1	4389	4.5	11.60	I-80	LT&C	9380	9389	3.875	57935
Run Seq	Collapse Load	Collapse Strength	Collapse Design	Burst Load	Burst Strength	Burst Design	Tension Load	Tension Strength	Tension Design
Seq	(psi)	(psi)	Factor	(psi)	(psi)	Factor	(kips)	(kips)	Factor
2	2982	5927	1.988	5126	7780	1.52	108.8	267	2.45 J
1	5604	6360	1.135	6091	7780	1.28	50.9	212	4.16 J

Helen Sadik-Macdonald Prepared Div of Oil, Gas & Mining by:

Phone: 801 538-5357 FAX: 801-359-3940

Date: February 27,2012 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 9380 ft, a mud weight of 12.5 ppg. An internal gradient of .052 psi/ft was used for collapse from TD Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

From: Jim Davis

To: APD APPROVAL

CC: Danielle Piernot; Julie Jacobson

Date: 4/2/2012 1:51 PM

Subject: Morgan State 921-36A Morgan State 921-36I pad wells

The following wells have been approved by SITLA including arch and paleo clearance.

Morgan State 921-36A4BS (4304752268) Morgan State 921-36A4CS (4304752269) Morgan State 921-36H1BS (4304752270) Morgan State 921-36H1CS (4304752271) Morgan State 921-36I1CS (4304752251) Morgan State 921-36H4BS (4304752288) Morgan State 921-36I1BS (4304752289) Morgan State 921-36I1BS (4304752290)

Thanks.

-Jim

Jim Davis Utah Trust Lands Administration jimdavis1@utah.gov Phone: (801) 538-5156

ON-SITE PREDRILL EVALUATION Utah Division of Oil Cos and Mining

Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.

Well Name Morgan State 921-36A4BS

API Number 43047522680000 APD No 5051 Field/Unit NATURAL BUTTES

Location: 1/4,1/4 NENE Sec 36 Tw 9.0S Rng 21.0E 675 FNL 686 FEL

GPS Coord (UTM) 628631 4428610 Surface Owner

Participants

Sheila Wopsock, Charles Chase, Danielle Piernot, Doyle Holmes, (Anadarko). John Slaugh, Mitch Batty, (Timberline). Jim Davis (SITLA). Alex Hansen (DWR). Chris Jensen and David Hackford, (DOGM).

Regional/Local Setting & Topography

This site is on an existing location, and very little new construction will be necessary.

This location is within the Natural Buttes Unit but this section is not part of the Natural Buttes Unit. It is approximately 14 road miles southeast of Ouray, Utah. The general area is at the head of a long unnamed wash east of Cottonwood Wash. Both washes enter the White River in the same general area, approximately six miles to the north. The area is characterized by rolling hills, which are frequently divided by somewhat gentle draws that drain northerly. This unnamed wash is an ephemeral drainage. No springs, seeps or streams exist in the area. An occasional pond constructed to supply water for cattle and antelope exists. The washes are sometimes rimmed with steep side hills, which have exposed sandstone bedrock cliffs along the rims.

Four new directional wells will be drilled from this location which currently has one well, the Morgan State 8-36. The decision to PA or TA this existing well hasn't been made at this time.

Surface Use Plan

Current Surface Use

Grazing Wildlfe Habitat Existing Well Pad

New Road Miles Well Pad Src Const Material Surface Formation

0 Width 287 Length 435 Onsite UNTA

Ancillary Facilities N

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Prickly pear, wild onion, shadscale, mat saltbrush, Indian ricegrass, halogeton, pepper grass. Principal species present are cheatgrass, black sagebrush, stipa, mesquite grass.

Sheep, antelope, coyote, raptors, small mammals and birds.

Soil Type and Characteristics

Rocky sandy clay loam.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? N

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? Y Paleo Potental Observed? N Cultural Survey Run? Y Cultural Resources? N

Reserve Pit

Site-Specific Factors	Site Ran	king	
Distance to Groundwater (feet)	> 200	0	
Distance to Surface Water (feet)	>1000	0	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)		20	
Native Soil Type	Mod permeability	10	
Fluid Type	Fresh Water	5	
Drill Cuttings	Normal Rock	0	
Annual Precipitation (inches)		0	
Affected Populations			
Presence Nearby Utility Conduits	Not Present	0	
	Final Score	3 5	1 Sensitivity Level

Characteristics / Requirements

The reserve pit is planned in an area of cut on the northwest corner of the location. Dimensions are 240' x 80' x 12' deep with two feet of freeboard. Kerr McGee has agreed to line this pit with a 30 mil synthetic liner and a layer of felt sub-liner.

Closed Loop Mud Required? N Liner Required? Y Liner Thickness 30 Pit Underlayment Required? Y

Other Observations / Comments

David Hackford 1/11/2012

Evaluator Date / Time

Application for Permit to Drill Statement of Basis

4/10/2012

Utah Division of Oil, Gas and Mining

APD No	API WellNo	Status	Well Type	Surf Owner (CBM
5051	43047522680000	SITLA	GW	S	No
Operator	KERR-MCGEE OIL & GAS ON	ISHORE, L.P.	Surface Owner-APD		
Well Name	Morgan State 921-36A4BS		Unit		
Field	NATURAL BUTTES		Type of Work	DRILL	
Location	NENE 36 9S 21E S	675 FNL 686	FEL GPS Coord		
Location	(UTM) 628645E 4428620)N			

Geologic Statement of Basis

Kerr McGee proposes to set 2,490' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 1,500'. A search of Division of Water Rights records shows one water well within a 10,000 foot radius of the center of Section 36. The well is listed as 2,640 feet deep and used for drilling water. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The proposed casing and cement should adequately protect. Any usable ground water.

Brad Hill **APD Evaluator**

2/7/2012 **Date / Time**

Surface Statement of Basis

The general area is in the central portion of the Natural Buttes Unit. Within this area is the White River and rugged drainages that drain into it. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River is six miles. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 42.8 miles to the northwest. Access from Vernal is by following Utah State, Uintah County and oilfield development roads.

Four wells will be directionally drilled from this location. They are the Morgan State 921-36H1CS, Morgan State 921-36H1BS, Morgan State 921-36A4CS and the Morgan State 921-36A4BS. The existing location currently has one well. This well is the Morgan State 8-36. The decision to PA or TA this well has not been made at this time. No drainage concerns exist, and no diversions will be needed. The pad as modified should be stable and sufficient for five wells, and is the best site for a location in the immediate area.

New construction will consist of approximately 100 feet on the south, 100 feet on the west, 75 feet on the north, and 100 feet on the east side of the existing location.

Both the surface and minerals are owned by SITLA. Jim Davis of SITLA and Alex Hansen with DWR were invited by email to the pre-site evaluation. Both were present. Kerr McGee personnel were told to consult with SITLA for reclamation standards including seeding mixes to be used.

David Hackford 1/11/2012
Onsite Evaluator Date / Time

Conditions of Approval / Application for Permit to Drill

Category Condition

Pits A synthetic liner with a minimum thickness of 16 mils with a felt subliner shall be properly installed

and maintained in the reserve pit.

Pits The reserve pit should be located on the northwest side of the location.

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 12/19/2011 API NO. ASSIGNED: 43047522680000

WELL NAME: Morgan State 921-36A4BS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) PHONE NUMBER: 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: NENE 36 090S 210E Permit Tech Review:

> SURFACE: 0675 FNL 0686 FEL **Engineering Review:**

> **BOTTOM: 0746 FNL 0493 FEL** Geology Review:

COUNTY: UINTAH

LATITUDE: 39.99797 LONGITUDE: -109.49298 **UTM SURF EASTINGS: 628645.00** NORTHINGS: 4428620.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: ML 22265 PROPOSED PRODUCING FORMATION(S): BLACKHAWK

SURFACE OWNER: 3 - State **COALBED METHANE: NO**

RECEIVED AND/OR REVIEWED: LOCATION AND SITING:

✓ PLAT R649-2-3.

Bond: STATE/FEE - 22013542 Unit:

Potash R649-3-2. General

Oil Shale 190-5

Oil Shale 190-3 R649-3-3. Exception

Drilling Unit Oil Shale 190-13

Board Cause No: Cause 173-24 Water Permit: 43-8496

Effective Date: 10/5/2009 **RDCC Review:**

Siting: 460' Fr Exterior Lease Boundary Fee Surface Agreement

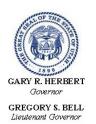
✓ Intent to Commingle R649-3-11. Directional Drill

Commingling Approved

Comments: Presite Completed

Stipulations:

3 - Commingling - ddoucet 5 - Statement of Basis - bhill 15 - Directional - dmason 17 - Oil Shale 190-5(b) - dmason 25 - Surface Casing - ddoucet



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: Morgan State 921-36A4BS

API Well Number: 43047522680000

Lease Number: ML 22265 Surface Owner: STATE Approval Date: 4/10/2012

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-24. The expected producing formation or pool is the BLACKHAWK Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:

In accordance with Board Cause No. 173-24, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil

shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Surface casing shall be cemented to the surface.

Additional Approvals:

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan contact Dustin Doucet
- Significant plug back of the well contact Dustin Doucet
- Plug and abandonment of the well contact Dustin Doucet

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well - contact Carol Daniels OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at http://oilgas.ogm.utah.gov

- 24 hours prior to testing blowout prevention equipment contact Dan Jarvis
- 24 hours prior to cementing or testing casing contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program
 - contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well contact Dan Jarvis

Contact Information:

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 office
- Dustin Doucet 801-538-5281 office

801-733-0983 - after office hours

• Dan Jarvis 801-538-5338 - office

801-231-8956 - after office hours

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
 - Requests to Change Plans (Form 9) due prior to implementation
 - Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
 - Report of Water Encountered (Form 7) due within 30 days after completion
 - Well Completion Report (Form 8) due within 30 days after completion or

Approved By:

For John Rogers Associate Director, Oil & Gas Sundry Number: 25948 API Well Number: 43047522680000

	STATE OF UTAH		FORM 9
ı	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MII		5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
SUNDR	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly reenter plugged wells, or to drill horizon n for such proposals.		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: Morgan State 921-36A4BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047522680000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	h Street, Suite 600, Denver, CO, 8021	PHONE NUMBER: 7 3779 720 929-6	9. FIELD and POOL or WILDCAT: 5MATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0675 FNL 0686 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NENE Section: 3	HIP, RANGE, MERIDIAN: 66 Township: 09.0S Range: 21.0E Meri	dian: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
✓ NOTICE OF INTENT	ACIDIZE	ALTER CASING	CASING REPAIR
Approximate date work will start: 5/30/2012	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
3/30/2012	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
Date of Work Completion.	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
Report Date:	WILDCAT WELL DETERMINATION	✓ OTHER	OTHER:
12. DESCRIBE PROPOSED OR	COMPLETED OPERATIONS. Clearly show	all pertinent details including dates, o	depths, volumes, etc.
Kerr-McGee Oil & C pit on this multi-we be relined per	Gas Onshore, LP is requesti Il pad for completion opera the requirements in the CO	ing to refurb the existing itions. The refurb pit will A of the APD. Upon	Approved by the Utah Division of Oil, Gas and Mining
· ·	wells on this pad, Kerr-McG		Date: May 29, 2012
	ACTS staging pit to be utili area. The trucks will unload		By: Danf James
	placed into the refurbed pit.		by
l .	any hydro-carbons that may		
	pletion operations before re	•	
	it open for 1 year. During th Detion fluids will be recycle	_	
	for other frac jobs in the s	•	ank vou
	,	3	•
NAME (PLEASE PRINT)	PHONE NUME		
Danielle Piernot	720 929-6156	Regulatory Analyst	
SIGNATURE N/A		DATE 5/22/2012	

Sundry Number: 25948 API Well Number: 43047522680000



The Utah Division of Oil, Gas, and Mining

- State of UtahDepartment of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43047522680000

A synthetic liner with a minimum thickness of 30 mils with a felt subliner shall be properly installed and maintained in the pit.

RECEIVED: May. 29, 2012

Print Form

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
Submitted By CARA MAHLER Phone Number 720.929.6029
Well Name/Number MORGAN STATE 921-36A4BS
Qtr/Qtr NENE Section 36 Township 98 Range 21E
Lease Serial Number ML 22265
API Number <u>4304752268</u>
<u>Spud Notice</u> – Spud is the initial spudding of the well, not drillin out below a casing string.
Date/Time <u>07/30/2012</u> <u>10:00 HRS</u> AM PM
Casing – Please report time casing run starts, not cementing times. ✓ Surface Casing Intermediate Casing Production Casing Liner Other
Date/Time <u>08/04/2012</u> <u>08:00 HRS</u> AM PM
BOPE Initial BOPE test at surface casing point BOPE test at intermediate casing point 30 day BOPE test Other
Date/Time AM
Remarks estimated date and time. Please contact kenny gathings at
435.828.0986 OR LOVEL YOUNG AT 435.781.7051

Sundry Number: 28791 API Well Number: 43047522680000

	STATE OF UTAH		FORM 9
	DEPARTMENT OF NATURAL RESOURC DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
SUNDR	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly or reenter plugged wells, or to drill horizor n for such proposals.		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: Morgan State 921-36A4BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047522680000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	h Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 3779 720 929-0	9. FIELD and POOL or WILDCAT: 5NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0675 FNL 0686 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 16 Township: 09.0S Range: 21.0E Meridi	an: S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
✓ SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud: 7/31/2012	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
	WILDCAT WELL DETERMINATION	OTHER	OTHER:
12 DESCRIBE PROPOSED OR	COMPLETED OPERATIONS. Clearly show a		denths volumes etc
MIRU TRIPLE A BU RAN 14" 36.7# SCH	CKET RIG. DRILLED 20" CON EDULE 10 CONDUCTOR PIPE VELL LOCATION ON 7/31/201	DUCTOR HOLE TO 40'. E. CMT W/28 SX READY	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY August 10, 2012
NAME (PLEASE PRINT) Cara Mahler	PHONE NUMB 720 929-6029	Regulatory Analyst I	
SIGNATURE N/A		DATE 8/9/2012	
I		1	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

			ENTITY ACTION	FORM			Hand	
perator:	KERR I	McGEE OIL & GAS ON	NSHORE LP	One	rator Ac	count Nu	ımber l	N 2995
Idress:	P.O. Bo	ox 173779		Opc	iatoi Ac	Count 140	bci. <u> </u>	
iuiess.	city DE	NVER		•				
	state C		zip 80217	-	_	da . N		(720) 929-6029
	state o		ZID 00217	-	۲	none Nu	mber: _	(,, ,
Vell 1						_		
API No		Well	Name	QQ	Sec	Twp	Rng	County
43047	52268	MORGAN	STATE 921-36A4BS	NENE	36	98	21E	HATAIU
Action	Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
α		99999	190665	7	7/31/201	2	8/5	30 12013
	SPUD	WELL LOCATION OF	N 7/31/2012 AT 17:30 I	HRS. BI	HL: K	ren		
Vell 2 API Nu	ımber	Well	Name	QQ	Sec	Twp	Rng	County
		· Violi	Name	- Ca Ca	000	TWP	ixing	County
Action	Code	Current Entity Number	New Entity Number	s	pud Dat	ie		ity Assignmen
							•	
Commen	ts:					7		
/ell 3		Well	Name		Sec	Two	Rna	County
/ell 3		Well	Name	QQ	Sec	Twp	Rng	County
/ell 3	ımber	Well Current Entity Number	Name New Entity Number		Sec pud Dat		Ent	
/ell 3 API Nu	ımber Code	Current Entity	New Entity				Ent	ity Assignmen

Sundry Number: 30409 API Well Number: 43047522680000

	STATE OF UTAH		FORM 9
ı	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN	=	5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
SUNDR	Y NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	posals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.	deepen existing wells below ntal laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: MORGAN STATE 921-36A4BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047522680000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 73779 720 929-	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0675 FNL 0686 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	IIP, RANGE, MERIDIAN: 6 Township: 09.0S Range: 21.0E Meric	lian: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
10/2/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:
	completed operations. Clearly show the month of September 201	2. Well TD at 2,515.	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY October 02, 2012
NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUMB 720 929-6857	ER TITLE Regulatory Analyst II	
SIGNATURE N/A		DATE 10/2/2012	

Sundry Number: 31322 API Well Number: 43047522680000

STATE OF UTAH DEPARTMENT OF PATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING SUNDRY NOTICES AND REPORTS ON WELLS SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill now wells, significantly deepen existing vells believe current bottom-hold depth, render plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. 1. TYPE OF REMIT TO DRILL form for such proposals. 2. AMBED OF PORTAGE: CARRY OF SUBMISSION 1. TYPE OF SUBMISSION 1. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION 1. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION 1. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION 1. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION 1. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION 1. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION 1. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION 1. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION 1. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION 1. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION 1. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION 1. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION 1. DATE OF THE OWN OF THE DATA TYPE OF SUBMISSION 1. DATE OF THE OWN OF THE DATA TYPE OF SUBMISSION 1. DATE OF THE OWN OF THE DATA TYPE OF SUBMISSION 1. DATE OF THE OWN OF THE DATA TYPE OF SUBMISSION 1. DATE OF THE OWN OF THE DATA TYPE OF SUBMISSION 1. DATE OF THE OWN OF THE DATA TYPE OF ACTION 1. DATE OF THE OWN OF T				
DIVISION OF OIL, GAS, AND MINING SUNDRY NOTICES AND REPORTS ON WELLS Do not use this farm for proposals to drill new wells, significantly deepen existing wells below represented to the proposals. The proposals of drill new wells, significantly deepen existing wells below represented to the proposals. The proposals of drill new wells, significantly deepen existing wells below represented to the proposals. The proposals of drill new wells, significantly deepen existing wells below represented to the proposals. The proposals of the proposals. The proposals of the proposals. The proposals of the proposals of the proposals of the proposals. The proposals of the proposals of the proposals of the proposals. The proposals of the proposals of the proposals. The proposals of the proposals of the proposals of the proposals. The proposals of the proposals of the proposals. The proposals of the proposals of the proposals of the proposals. The proposals of the proposals of the proposals of the proposals. The proposals of the proposals of the proposals of the proposals. The proposals of the proposals of the proposals of the proposals of the proposals. The proposals of the				FORM 9
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR FERMIT TO PRILL form for such proposals. 1. TYPE OF WELL 2. NAME OF OPERATOR: KERR-MIGGEE OIL & GASS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: KERR-MIGGEE OIL & GASS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: KERR-MIGGEE OIL & GASS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: KERR-MIGGEE OIL & GASS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: KERR-MIGGEE OIL & GASS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: KERR-MIGGEE OIL & GASS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: KERR-MIGGEE OIL & GASS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: KERR-MIGGEE OIL & GASS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: KERR-MIGGEE OIL & GASS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: KERR-MIGGEE OIL & GASS ONSHORE, L.P. 4. LICATOR OF WELL OOTAGES AT SURFACE: OOTAGES AT			6	l .
DUTATION DOTAILS draw for such proposals. 1.17PE OF WELL Gas Well SANDRESS OF OFERATOR: KERR MICSEE OIL & GAS ONSHORE, L.P. 3.ADDRESS OF OFERATOR: KERR MICSEE OIL & GAS ONSHORE, L.P. 3.ADDRESS OF OFERATOR: KERR MICSEE OIL & GAS ONSHORE, L.P. 3.ADDRESS OF OFERATOR: KERR MICSEE OIL & GAS ONSHORE, L.P. 3.ADDRESS OF OFERATOR: KERR MICSEE OIL & GAS ONSHORE, L.P. 3.ADDRESS OF OFERATOR: KERR MICSEE OIL & GAS ONSHORE, L.P. 3.ADDRESS OF OFERATOR: KERR MICSEE OIL & GAS ONSHORE, L.P. 3.ADDRESS OF OFERATOR: KERR MICSEE OIL & GAS ONSHORE, L.P. 3.ADDRESS OF OFERATOR: KERR MICSEE OIL & GAS ONSHORE, L.P. 3.ADDRESS OF OFERATOR: COUNTY: LINTAH 1. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION 1. Venice or WITCH. Septimizer BEFORE COMMON TO PREMODE PLANS OFERATOR CHANNE WILL STATE OFERATOR CHANNE OF PREMODE OFERATOR CHANNE OFERAT	SUNDF	RY NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Cas Well NORGAN STATE 221-36A48S 9. AN HUMBER: 4.3047522880000 9. AFILD and POOL or WILDCAT: 7.20 929-6857 1. ADDRESS OF OPERATOR: PHONE NUMBER: 1. ADDRESS OF OPERATOR: PHONE NUMBER: 1. ADDRESS OF OPERATOR: PHONE NUMBER: 1. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TO SUBMISSION TYPE OF SUBMISSION TYPE OF SUBMISSION TYPE OF SUBMISSION TYPE OF SUBMISSION TO SUBMISSION TYPE OF ACTION THE CAPACITY OF THE TYPE OF	current bottom-hole depth,	reenter plugged wells, or to drill horizontal I		7.UNIT or CA AGREEMENT NAME:
3. ADDRESS OF OPERATOR: PO. BOX 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 720 929- 4. LOCATION OF WELL POOTAGES AT SURFACE: 0673 FNL 0696 FEL 0674 FNL 0696 FEL 0674 FNL 0696 FEL 0674 FNL 0696 FEL 0675 FNL 0696 FEL 0675 FNL 0696 FEL 0674 FNL 0696 FEL 0675 FNL 0696 FEL 0674 FNL 0696 FNL 0674 FNL 0696 FNL 0674 FNL 0696 FNL 0744 FNL 0696 FNL 0745 F	I .			
ALCACATION OF WELL FOOTAGES AT SURFACE: GOTS FIN. 0688 FEL GOTEO ITEMS TYPE OF SUBMISSION TYPE OF SUBMISSION ACROES ACROSS OF SUBMISSION TYPE OF ACTION ACROSS ACROS		NSHORE, L.P.		l .
FOOTAGES AT SURFACE: 0675 FN. 0868 FEL 07676TR, SECTION, TOWNSHIP, RANGE, MERIDIAN: 0177CTR. NENE Section: 36 Township: 09.05 Range: 21.0E Meridian: S 118. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION ACIDIZE ALTER CASING ACIDIZE ACIDI				
TATE: UTAH 11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION ADDIZE	FOOTAGES AT SURFACE:			
TYPE OF SUBMISSION ACIDIZE ALTER CABING CABNG REPAIR	QTR/QTR, SECTION, TOWNS		S	l .
MOTICE OF INTENT Approximate date work will start: 10/25/2012 SUBBEQUESTAT REPORT Date of Work Completion: Department of Work Completion: Date of Work Completion: Date of Work Completion: Department of Work Completion: Date of Work Completion: Department of Work Completion: Date of Work Completion:		K APPROPRIATE BOXES TO INDICATE N.	ATURE OF NOTICE, REPOR	T, OR OTHER DATA
Approximately 4,200 feet where the DV Tool will be placed. Run a centralizer and cement basket on the Crossover (use a stop ring to keep the CMT Basket at top of the rool joint). Run a DX Q casing to surface. The actual depth details will be captured in the well completion report. MAME (PLEASE PRINT) CHAMGE WELL STATUS CHAMGE WELL NAME CHAMGE W	TYPE OF SUBMISSION		TYPE OF ACTION	
Lindsey Frazier 720 929-6857 Regulatory Analyst II SIGNATURE DATE	Approximate date work will start: 10/25/2012 SUBSEQUENT REPORT Date of Work Completion: PRILLING REPORT Report Date: 12. DESCRIBE PROPOSED OR The operator reproduction casing selow describes he approximately 4,3 centralizer and cere a stop ring to keep Tool at approximately 4,196 Crossover (use a	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF WILDCAT WELL DETERMINATION COMPLETED OPERATIONS. Clearly show all performed and run a 2 stage cement to ensure cement is properly circle ow it will be conducted: Run 180 200 feet where the DV Tool will nent basket on the 180 joint below the CMT Basket at top of the total stop ring to keep the CMT Basket Q casing to surface. The actual	CHANGE TUBING COMMINGLE PRODUCING FORMATIONS FRACTURE TREAT PLUG AND ABANDON RECLAMATION OF WELL SITE SIDETRACK TO REPAIR WELL VENT OR FLARE SI TA STATUS EXTENSION OTHER Trinent details including dates, dea DV tool in the job after setting the reculated to surface. O casing from TD to be placed. Run a low the DV Tool (use lool joint). Run a DV (Q crossover at lement basket on the let at bottom of the depth details will be	CHANGE WELL NAME CONVERT WELL TYPE NEW CONSTRUCTION PLUG BACK RECOMPLETE DIFFERENT FORMATION TEMPORARY ABANDON WATER DISPOSAL APD EXTENSION OTHER: DV Tool Depths, volumes, etc. Approved by the Utah Division of Oil, Gas and Mining Date: October 29, 2012
SIGNATURE DATE	,		I .	
		720 929-6857	, , ,	

Sundry Number: 31602 API Well Number: 43047522680000

	STATE OF UTAH		FORM 9
1	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MINI		5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
SUNDR	RY NOTICES AND REPORTS O	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	oposals to drill new wells, significantly d reenter plugged wells, or to drill horizon n for such proposals.		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: MORGAN STATE 921-36A4BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047522680000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	h Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 3779 720 929-6	9. FIELD and POOL or WILDCAT: 5NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE:			COUNTY: UINTAH
0675 FNL 0686 FEL QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NENE Section: 3	HIP, RANGE, MERIDIAN: 66 Township: 09.0S Range: 21.0E Meridia	an: S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
		ALTER CASING	CASING REPAIR
NOTICE OF INTENT	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
Approximate date work will start:	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN [FRACTURE TREAT	☐ NEW CONSTRUCTION
11/4/2012	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:		_	
	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
DRILLING REPORT	L TUBING REPAIR	UVENT OR FLARE	☐ WATER DISPOSAL ☐
Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
	WILDCAT WELL DETERMINATION	OTHER	OTHER: RIG REL & ACTS PIT
FINISHED DRILI PRODUCTION CAS OF CEMENT JOB REPORT. WELL IS W	COMPLETED OPERATIONS. Clearly show al LING TO 9,385 FEET ON 11/02 ING. RELEASED H&P 298 RIG WILL BE INCLUDED WITH THE VAITING ON FINAL COMPLETIC I WILL BE REFURBISHED AND THE ACTS SYSTEM.	2/2012. CEMENTED ON 11/04/12. DETAILS WELL COMPLETION ON ACTIVITIES. THE PIT	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY November 05, 2012
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBE 720 929-6304	R TITLE Regulartory Analyst	
SIGNATURE	720 020 0007	DATE	
N/A		11/5/2012	

Sundry Number: 33543 API Well Number: 43047522680000

	STATE OF UTAH				FORM 9
ι	DEPARTMENT OF NATURAL RESOURG DIVISION OF OIL, GAS, AND MIT		3	5.LEASE ML 222	DESIGNATION AND SERIAL NUMBER: 265
SUNDR	Y NOTICES AND REPORTS	ON	WELLS	6. IF IND	IAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly reenter plugged wells, or to drill horizon n for such proposals.			7.UNIT o	r CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well				1	NAME and NUMBER: AN STATE 921-36A4BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			9. API NU 43047	JMBER: 522680000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 8021		NE NUMBER: 9 720 929-6	1	and POOL or WILDCAT: AL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0675 FNL 0686 FEL				COUNTY	
QTR/QTR, SECTION, TOWNSH	<mark>IIP, RANGE, MERIDIAN:</mark> 6 Township: 09.0S Range: 21.0E Merio	dian: \$	S	STATE: UTAH	
11. CHECK	K APPROPRIATE BOXES TO INDICA	TE N	ATURE OF NOTICE, REPOR	T, OR O	THER DATA
TYPE OF SUBMISSION			TYPE OF ACTION		
	ACIDIZE		ALTER CASING		CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS		CHANGE TUBING		CHANGE WELL NAME
	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS		CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	П	FRACTURE TREAT		NEW CONSTRUCTION
	OPERATOR CHANGE	П	PLUG AND ABANDON		PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME		RECLAMATION OF WELL SITE		RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION		SIDETRACK TO REPAIR WELL		TEMPORARY ABANDON
					WATER DISPOSAL
✓ DRILLING REPORT	L TUBING REPAIR		/ENT OR FLARE		
Report Date: 1/3/2013	WATER SHUTOFF	□ s	SI TA STATUS EXTENSION		APD EXTENSION
1,0,2010	WILDCAT WELL DETERMINATION	∐ c	DTHER	ОТНЕ	ER:
No Activity for t	completed operations. Clearly show he month of December 201	2. W	Vell TD at 9,385	FOI	Accepted by the Utah Division of II, Gas and Mining R RECORD ONLY Ianuary 07, 2013
NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUME 720 929-6857	BER	TITLE Regulatory Analyst II		
SIGNATURE N/A			DATE 1/3/2013		

Sundry Number: 34369 API Well Number: 43047522680000

	STATE OF UTAH		FORM 9
ı	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
SUNDR	Y NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly reenter plugged wells, or to drill horizo n for such proposals.		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: MORGAN STATE 921-36A4BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047522680000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 8021	PHONE NUMBER: 73779 720 929-6	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0675 FNL 0686 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 6 Township: 09.0S Range: 21.0E Meric	dian: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
2/4/2013	WILDCAT WELL DETERMINATION	OTHER	OTHER:
	COMPLETED OPERATIONS. Clearly show d completing the well. Well	_	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY February 13, 2013
NAME (PLEASE PRINT) Laura Abrams	PHONE NUMB 720 929-6356	EER TITLE Regulatory Analyst II	
SIGNATURE	120 323-0330	DATE	
N/A		2/4/2013	

RECEIVED: Feb. 04, 2013

Sundry Number: 34757 API Well Number: 43047522680000

	STATE OF UTAH				FORM 9
ı	DEPARTMENT OF NATURAL RESOU DIVISION OF OIL, GAS, AND N		6	5.LEASE DESIGNATION AND SERIA ML 22265	L NUMBER:
SUNDR	RY NOTICES AND REPORT	S ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE	NAME:
	posals to drill new wells, significant reenter plugged wells, or to drill hori n for such proposals.			7.UNIT or CA AGREEMENT NAME:	
1. TYPE OF WELL Gas Well				8. WELL NAME and NUMBER: MORGAN STATE 921-36A4BS	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			9. API NUMBER: 43047522680000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	h Street, Suite 600, Denver, CO, 802		ONE NUMBER: 720 929-6	9. FIELD and POOL or WILDCAT: 5NATURAL BUTTES	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0675 FNL 0686 FEL				COUNTY: UINTAH	
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 66 Township: 09.0S Range: 21.0E Me	eridian:	S	STATE: UTAH	
11. CHECI	K APPROPRIATE BOXES TO INDIC	CATE N	ATURE OF NOTICE, REPOR	RT, OR OTHER DATA	
TYPE OF SUBMISSION			TYPE OF ACTION		
	ACIDIZE		ALTER CASING	CASING REPAIR	
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS		CHANGE TUBING	CHANGE WELL NAME	
	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE	
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN		FRACTURE TREAT	NEW CONSTRUCTION	
	OPERATOR CHANGE	i	PLUG AND ABANDON	PLUG BACK	
SPUD REPORT	✓ PRODUCTION START OR RESUME		RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMAT	TION
Date of Spud:	REPERFORATE CURRENT FORMATION		SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON	
	TUBING REPAIR		/ENT OR FLARE	WATER DISPOSAL	
✓ DRILLING REPORT Report Date:	WATER SHUTOFF		SI TA STATUS EXTENSION	APD EXTENSION	
2/13/2013	WILDCAT WELL DETERMINATION	\Box	THER	OTHER:	i
12. DESCRIBE PROPOSED OR	WILDCAT WELL DETERMINATION COMPLETED OPERATIONS. Clearly sho	w all pe	other rtinent details including dates, d	!	
	I was placed on production I History will be submitted report.			Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD O February 19, 2013	
NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUI 720 929-6857	MBER	TITLE Regulatory Analyst II		
SIGNATURE	120 323-0031		DATE		
N/A			2/14/2013		

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

RECEIVED

MAR 1 9 2013

AMENDED REPORT ☐ (highlight changes)

5. LEASE DESIGNATION AND SERIAL NUMBER:
ML 22265

FORM 8

													IVIL ZZZ				
WEL	L COMP	LET	ION	OR R	RECC	MPL	ETIC	ON R	EPOF	RT AND	OIL GAS & M D LOG	MING6.	F INDIAN, A	ALLOTTEE OF	TRIB	E NAME	
1a. TYPE OF WELL	<u> </u>	OIL	LL C] ç	SAS VELL		DRY		ОТН	ER		7.	UNIT or CA	AGREEMENT	NAME		
b. TYPE OF WOR NEW WELL. 2. NAME OF OPER	HORIZ.	DE EN	EP-		RE- NTRY [DIFF. RESVR.		отн	ER				AN STA		921-36	A4BS
	GEE OIL 8	ß GA	S ON	SHOR	E, L.F	Ρ						9.	430475				
3. ADDRESS OF OR P.O.BOX 1		CI	TY DE	NVER		STATE	CO	ZIP 802	 217		NUMBER:			POOL, OR W			
4. LOCATION OF V			1000		(3) (1) (1) (2)	· 2				l <u></u> _			QTR/QTR,	SECTION, TO	WNS	IP, RANGI	Ξ,
AT SURFACE:	NENE 675	FNL	- 686	FEL S	36,T9	S,R2	1E						ENE			21E S	
AT TOP PRODU	ICING INTERVAL	REPOR	TED BEL	.ow: N	ENE	732 F	NL 50	0 FEL	S36,T	9S,R21I							
AT TOTAL DEPT	TH: NENE 7	762 F	NL 4	87 FEI	_ S36,	T9S,F	R21E						COUNTY	i	13	. STATE	UTAH
14. DATE SPUDDE 7/31/2012		DATE T. 1/2/2	D. REAC 012	HED:	16. DAT	E COMPL 3/2013		21 ·	ABANDON	ED	READY TO PROD	OUCE 🖊		ATIONS (DF,	RKB, F	RT, GL):	
18. TOTAL DEPTH:	MD 9,385 TVD 9.379		31 . 1 384	19. PLUG	BACK T.E		9,330 9,324		20. IF I	MULTIPLE CO	OMPLETIONS, HO	W MANY? *		H BRIDGE JG SET:	MD		
22. TYPE ELECTRI			CAL LO	GS RUN (S	Submit cop					23.			<u> </u>		TVD		
CBL/GR/CC	CL/TEMP										L CORED?		1.00	ES 🔲 (Submi	t analysis)	
										WAS DST	RUN? NAL SURVEY?	NC NC		=		t report)	
24. CASING AND L	INER RECORD (F	Report a	ll strings	s set in we	ell)			· <u> </u>		BIINEOTIO	IVAL GORVET :	140	<u>' </u>		Subini	t copy)	
HOLE SIZE	SIZE/GRADE		WEIGHT	(#/ft.)	TOP	(MD)	вотт	OM (MD)		CEMENTER EPTH	CEMENT TYPE NO. OF SACKS		JRRY ME (BBL)	CEMENT TO	P **	AMOUNT	PULLED
20"	14" S	TL	36.7	7#)		40			2	8					
11"	8 5/8" IJ-	55	28	#	C)	2,	503			68	io		0			**
7 7/8"	4 1/2" I-	80	11.6	6#	C)	9,	376			1,65	50		388			
	V Te, te V											4					
· · · · · · · · · · · · · · · · · · ·										9.44							
							<u></u>		L								
25. TUBING RECO		. (145)	Lavor	CD OFT 4				T		<u> </u>							
2 3/8"	8.67		PACK	ER SET (N	ID)	SIZE		DEPTH	SET (MD)	PACKE	R SET (MD)	SIZE	DE	PTH SET (MI	D)	PACKER S	ET (MD)
26. PRODUCING IN			1		!			1		27. PERFO	RATION RECORD		!_				-
FORMATION		TOP (MD)	вотто	M (MD)	TOP	(TVD)	ВОТТО	M (TVD)		L (Top/Bot - MD)	SIZE	NO. HOLE	S PER	RFORA	TION STA	TUS
(A) WASATO	H	6,2	74	7,1	63			-		6,274	7,163		72	Open		Squeezed	
(B) MESAVE	RDE	7,4	44	9,2	211					7,444	9,211		138	Open	_	Squeezed	
(C)														Open] {	Squeezed	
(D)										Wild in		i i		Open] {	Squeezed	
28. ACID, FRACTU	RE, TREATMENT	, CEME	NT SQUI	EEZE, ETC) .												
DEPTH	INTERVAL								AM	OUNT AND T	YPE OF MATERIA	L		- i			
6274-9211			PUN	/IP 836	7 BBI	_S SL	ICK F	120 &	184,56	6 LBS 3	0/50 OTTA	WA SA	ND				
			9 ST	AGES	3												
29. ENCLOSED AT	TACHMENTS:													30.	WELL	STATUS:	
=	TRICAL/MECHANI			CEMENT	VERIFICA	ATION		GEOLOG	IC REPOR	=	DST REPORT	✓ DIRE	CTIONAL S	JRVEY	F	PROD)

	PRODUCT	

INTERVAL A (As shown in item #26)

2/13/2013		2/15/2013	3	HOURS TESTER	o: 24	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF: 2,487	WATER – BBL:	PROD. METHOD: FLOWING
CHOKE SIZE: 20/64	TBG. PRESS. 1,830	CSG. PRESS. 2,508	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL-BBL:	GAS - MCF: 2,487	WATER - BBL:	INTERVAL STATUS PROD
		_		INT	ERVAL B (As sho	wn in item #26)				· · · · · · · · · · · · · · · · · · ·
DATE FIRST PF	RODUCED:	TEST DATE:		HOURS TESTE	D:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE;	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS - MCF:	WATER BBL:	INTERVAL STATUS
			***	INT	ERVAL C (As sho	wn in item #26)				<u> </u>
DATE FIRST PF	RODUCED:	TEST DATE:		HOURS TESTE	D:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS - MCF:	WATER – BBL:	INTERVAL STATUS:
				INT	ERVAL D (As sho	wn in item #26)	. •			<u> </u>
DATE FIRST PF	RODUCED:	TEST DATE:		HOURS TESTE	D:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS - MCF:	WATER BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL BBL:	GAS - MCF:	WATER – BBL:	INTERVAL STATUS:
32. DISPOSITION SOLD	ON OF GAS (Sold	, Used for Fuel, V	ented, Etc.)						<u>. </u>	
Show all imports	ant zones of porosi	NES (Include Aqui ity and contents the en, flowing and shu	ereof: Cored interva	als and all drill-stem recoveries,	n tests, including de		4. FORMATION	(Log) MARKERS:		

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
				GREEN RIVER BIRD'S NEST MAHOGANY WASATCH MESAVERDE	1,308 1,626 2,110 4,576 7,232

35. ADDITIONAL REMARKS (Include plugging procedure)

The first 210' of the surface hole was drilled with a 12 %" bit. The remainder of surface hole was drilled with an 11" bit. DQX csg was run from surface to 4229'; LTC csg was run from 4229' to 9376'. A DV tool was placed in the well from 4229 feet - 4232 feet. A sundry was approved 10/29/2012 allowing this work. Attached is the chronological well history, perforation report & final survey.

20	I havaby cartify that the	forcester and offeeled late				
50.	Thereby certify that the	foregoing and attached info	manon is complete and	i correct as determine	a from all avallable record	ıs.

NAME (PLEASE PRINT) LINDSEY FRAZIER	TITLE REGULATORY ANALYST
SIGNATURE Lindy des	DATE 3/11/2013

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests
- * ITEM 20: Show the number of completions if production is measured separately from two or more formations.
- ** ITEM 24: Cement Top Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to:

Utah Division of Oil, Gas and Mining

1594 West North Temple, Suite 1210

Box 145801

Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

US ROCKIES REGION

Operation Summary Report

Event: DRILLING Start Dat					Spud Date: 8/18/2 RGAN STATE 921-36A PAD				Rig Name No: PROPETRO 11/11, H&P 298/298 End Date: 11/4/2012		
					e: 7/19/2012 UWI: NE/NE/0/9/S/21/E/36/0/0/26/PM/N/675/E						
										Active Datum: RKB @4,949.00usft (above Mean Sea Level)	
Date	S	Time tart-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation		
8/18/2012		- 16:00 - 16:30	0.50	MIRU	01	В	Р		SPOT IN CATWALK AND PIPE RACKS. RIG UP PUMP. PRIME PUMP. INSPECT RIG. SAFETY MEETING		
	16:30 17:30 18:00	- 18:00 - 19:00 - 0:00	0.50 1.00 5.00	DRLSUR DRLSUR DRLSUR DRLSUR DRLSUR	06 02 06 06 02	A B A D	P P P		PICK UP 12.25" BIT, 8" MUD MOTOR & TIH DRILL 12.25" SURFACE HOLE F/ 44'- 210' ROP= 166' @ 166 FPH WOB= 5/15K RPM= 45- POWERHEAD /// 79- MUD MOTOR UP/DN/RT= 37/33/34 SPP- ON/OFF= 800/400 M.W. 8.4# VIS 27 465 GPM PUMP RATE /// NO AIR TORQUE- ON/OFF=2600/1000 NOV - ONLINE TOOH & LAY DOWN 12.25" BIT PICK UP 11" BIT, DIR. TOOLS, SCRIBE & TIH DRILL 11" SURFACE HOLE F/ 210'-970' ROP= 760' @ 152 FPH WOB= 18/20K RPM= 50- POWERHEAD /// 79- MUD MOTOR UP/DN/RT= 61/50/56 5K DRAG		
8/19/2012	0:00	- 5:00	5.00	DRLSUR	02	D	Р		SPP- ON/OFF= 1100/900 M.W. 8.4# VIS 28 465 GPM PUMP RATE /// NO AIR TORQUE- ON/OFF= 3000/2400 HOLE IN GOOD SHAPE 1' ABOVE & 2.5' RIGHT OF TARGET LINE 166' / 14% SLIDE NOV - ONLINE 100% RETURNS DRILL 11" SURFACE HOLE F/ 970'-1457' ROP= 487' @ 97 FPH WOB= 18/20K RPM= 50- POWERHEAD /// 79- MUD MOTOR UP/DN/RT= 73/56/61 11K DRAG SPP- ON/OFF= 1200/1000 M.W. 8.4# VIS 28 465 GPM PUMP RATE /// NO AIR TORQUE- ON/OFF= 3000/2400 HOLE IN GOOD SHAPE 5.5' ABOVE & 1.5' RIGHT OF TARGET LINE 54' / 4% SLIDE NOV - ONLINE 100% RETURNS		

US ROCKIES REGION

Operation Summary Report

Well: MORGAN	STATE 921-36A4B	GREEN		Spud Date: 8/18/2012							
Project: UTAH-U	Site: MOF	RGAN ST	ATE 921	-36A PAD		Rig Name No: PROPETRO 11/11, H&P 298/298 End Date: 11/4/2012					
Event: DRILLING	Start Date	e: 7/19/20)12								
Active Datum: RI Level)	KB @4,949.00usft (above Mean Se		UM: NE/NE/0/9/S/21/E/36/0/0/26/PM/N/675/E/0/686/0/0							
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation Operation			
	5:00 - 10:00 10:00 - 15:30	5.50	DRLSUR	02	D	P		DRILL 11" SURFACE HOLE F/ 1457'- 2065' ROP= 608' @ 121 FPH WOB= 18/20K RPM= 50- POWERHEAD /// 79- MUD MOTOR UP/DN/RT=79/68/73 6K DRAG SPP- ON/OFF=1350/1150 M.W. 8.4# VIS 28 465 GPM PUMP RATE /// AIR AS NEEDED FOR VOLUME TORQUE- ON/OFF= 3000/2400 HOLE IN GOOD SHAPE 3' ABOVE & 2' RIGHT OF TARGET LINE 74 / 5.5% SLIDE NOV - ONLINE LOST 20% RETURNS @ 1550' DRILL 11" SURFACE HOLE F/ 2065'-2515' ROP= 450' @ 82 FPH WOB= 18/20K RPM= 50- POWERHEAD /// 79- MUD MOTOR UP/DN/RT=82/76/79 3K DRAG SPP- ON/OFF=1550/1350 M.W. 8.4# VIS 28 465 GPM PUMP RATE /// AIR AS NEEDED FOR VOLUME TORQUE- ON/OFF= 3000/2400 HOLE IN GOOD SHAPE OF TARGET LINE % SLIDE NOV - ONLINE LOST 20% RETURNS @ 1550'			
	15:30 - 17:30	2.00	DRLSUR	05	Α	Р		CIRCULATE & CONDITION HOLE FOR 8-5/8" SURFACE CSG			
	17:30 - 20:00	2.50	DRLSUR	06	Α	P		LAY DOWN DŘÍLL ŠTŘÍNĞ			
	20:00 - 22:00	2.00	DRLSUR	05	J	Р		CIRCULATE & CHECK FOR FLOW - WELL FLOWING /// PUMP KILL MUD			
	22:00 - 23:00	1.00	DRLSUR	06	Α	Р		LAY DOWN DRILL STRING & DIR. TOOLS			
	23:00 - 0:00	1.00	CSGSUR	12	Α	Р		MOVE PIPE RACKS AND CATWALK, PULL DIVERTER HEAD. RIG UP TO RUN CSG. MOVE CSG INTO POSITION TO P/U.			
8/20/2012	0:00 - 2:00	2.00	CSGSUR	12	С	P		RUN 56 JT'S, 8-5/8", 28#, J-55, LT&C CSG /// SHOE SET @ 2481' & BAFFLE @ 2435'			
	2:00 - 2:30	0.50	CSGSUR	12	В	Р		HOLD SAFETY MEETING PUMP ON CASING RUN 200' OF 1". RIG DOWN /// MOVE RIG OFF WELL /// INSTALL CEMENT HEAD IN CSG			

Operation Summary Report

Well: MORGAN S		21-36A4BS	GREEN					Spud Date: 8/18/2012
Project: UTAH-U	INTAH			Site: MOI	RGAN ST	ATE 921	-36A PAD	Rig Name No: PROPETRO 11/11, H&P 298/298
Event: DRILLING	}			Start Date	e: 7/19/20	112		End Date: 11/4/2012
Active Datum: Rh	KB @4,9	49.00usft (a	bove Mean S	ea	UWI: NI	E/NE/0/9/	/S/21/E/36	0/0/26/ PM/N /675/E/0/686/0/0
Level)	-							
Date	SI	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)
	2:30	- 4:30	2.00	CSGSUR	12	E	P	RIG UP PRO PETRO PUMP TRUCK /// LOAD PLUG /// TEST LINES TO 2000 PSI. /// PUMP 140 BBLS FOLLOWED BY 20 BBL'S GEL WATER /// LEAD = 280sx CLASS G CMT @ 12.0 WT & 2.86 YIELD /// TAIL = 170sx OF 15.8 WT & 1.15 YIELD /// DROP PLUG & DISPLACE W/ 152 BBLS WATER /// PLUG DOWN @ 04:01 08/20/2012 /// BUMP PLUG @ 500 PSI /// FINAL LIFT = 180 PSI. /// CHECK FLOAT - HELD W/ 1 BBL BACK /// LOST 40% RETURNS 40 BBLS INTO TAIL /// NO CMT TO SURFACE /// PUMP 150 SXS 15.8# CMT W/4% CALCIUM DOWN 1". /// CEMENT TO SURFACE BUT FELL BACK
	4:30	- 7:00	2.50	CSGSUR	12	E	P	WOC & PUMP #2 TOP OUT W/ 50sx CMT @ 15.8 WT & 1.15 YIELD /// CEMENT TO SURFACE /// RELEASE
10/30/2012	17:00	- 17:30	0.50	MIRU3	01	С	Р	RIG @ 07:00- 08/20/2012 TO THE NBU 921-22G1CS SKID RIG 20' TO MS 921-36J1CS,ALIGN OVER WELL
	17:30	- 19:00	1,50	PRPSPD	14	A	Р	NIPPLE UP BOPE, RIG UP AFTER SKID
	19:00	- 23:30	4.50	PRPSPD	15	A	P	PRESSURE TEST CASING 1,500 HIGH 250 LOW
	23:30	- 0:00	0,50	PPPCPP	44			FOR 30 MIN / PRESSURE TEST H&P EQUIP BLIND RAMS, PIPE RAMS, FLOOR VALVE, KILL LINES & KILL LINE VALVES, BOP WING VALVES, HCR VALVE + CHOKE LINE; INNER AND OUTER CHOKE VALVES & MANIFOLD TO 250 PSI LOW @ 5 MINUTES + 5000 PSI HIGH @ 10 MINUTES + 2,500 PSI HIGH @ 5 MINUTES + 2,500 PSI HIGH
10/24/0040	0:00			PRPSPD	14	В	P	INSTALL WEAR BUSHING SMITH BEARING ASSY,
10/31/2012	0:30	- 0:30	0.50	PRPSPD	15	Α .	P -	TEST MI SWACO EQUIP TO 1,000 PSI
		- 3:00	2.50	PRPSPD	06	Α _	P	PICK UP MUD MTR,BIT, DIRECTIONAL BHA WITH WEATHERFORD SCRIBE,ORIENT, TEST SAME TIH TAG @ 2,380,FILL PIPE
	3:00	- 4:00	1.00	PRPSPD	07	В	P	LEVEL DERRICK, INSTALL ROTATING, PRE SPUD INSPECTION
	4:00 5:00	- 5:00 - 14:30	1.00 9.50	DRLPRC	02 02	В	P	DRILL CEMENT F/2,380 BAFFLE @ 2,458, SHOE 2,503 OPEN HOLE TO 2,537
								DRILL /SLIDE / SURVEY/ F/2,537-4,226 = 1526' @160.6 FPH WOB 18,000-25,000 TOP DRIVE RPM 40-75 MUD MOTOR RPM 124 PUMPS 123 SPM= 558 GPM PUMP PRESSURE ON/OFF BTM 2,110 /1,785 TORQUE ON/OFF BTM 6,000/ 4,000 PICK UP WT 120,000 SLACK OFF WT 109,000 ROT WT 114,000 SLIDE 82' IN 60 MIN 4.8 % OF FOOTAGE DRILLED,12.2 %OF HRS DRILLED 230 BBLS FLUID LOST MUD WT 8.4 VIS 27, PUMPING 5-10 BBL SWEEPS EVERY STAND,W/ 3-4% SAWDUST,ANCO FIBER,CAL CARB NOV-D WATER
	4.4-		4 22				_	SWACO OFF LINE
	14:30	- 15:00	0.50	DRLPRV	07	Α	P	DAILY RIG SERVICE

3/7/2013 9:01:04AM

Operation Summary Report

Well: MORGAN S	TATE 921-36A4BS	GREEN					Spud Date: 8/18/2012
Project: UTAH-UII	NTAH		Site: MOI	RGAN ST	ATE 921	-36A PAD	Rig Name No: PROPETRO 11/11, H&P 298/298
Event: DRILLING			Start Date	e: 7/19/20	112		End Date: 11/4/2012
Active Datum: RK Level)	B @4,949.00usft (al	bove Mean Se	ea	UWI: NE	E/NE/0/9/	/S/21/E/36/0	/0/26/PM/N/675/E/0/686/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)
	15:00 - 0:00	9.00	DŘLPRV	02	В	P	-DRILL /SLIDE / SURVEY/ F/4,226'-T/5,831' = 1605' @ 178' FPH WOB 18,000-25,000 TOP DRIVE RPM 40-75 MUD MOTOR RPM 124 PUMPS 123 SPM= 558 GPM PUMP PRESSURE ON/OFF BTM 2,200 /1,825 TORQUE ON/OFF BTM 9,000/ 5,000 PICK UP WT 150,000 SLACK OFF WT 136,000 ROT WT 123,000 112 BBLS FLUID LOST MUD WT 8.4 VIS 27, PUMPING 5-10 BBL SWEEPS EVERY STAND,W/ 3-4% SAWDUST,ANCO FIBER,CAL CARB NOV-D WATER
11/1/2012	0:00 - 6:00	6.00	DRLPRV	02	В	P	SWACO OFF LINE DRILL /SLIDE / SURVEY/ F/ 5,831'- T/ 6,650' = 819' @ 136.5 FPH WOB 18,000-25,000 TOP DRIVE RPM 40-75 MUD MOTOR RPM 124 PUMPS 123 SPM= 558 GPM PUMP PRESSURE ON/OFF BTM 2,300 /1,900 TORQUE ON/OFF BTM 10,000/ 6,000 PICK UP WT 164,000 SLACK OFF WT 136,000 ROT WT 148,000 SLIDE 20' IN 20 MIN 6.67% OF FOOTAGE DRILLED, 2.74 %OF HRS DRILLED MUD WT 8.4 VIS 27, PUMPING 5-10 BBL SWEEPS EVERY STAND,W/ 3-4% SAWDUST,ANCO FIBER,CAL CARB NOV-D WATER
	6:00 - 14:30	8.50	DRLPRV	02	В	P	SWACO OFF LINE 112 BBL MUD LOSS DRILL /SLIDE / SURVEY/ F/ 6,650'- T/ 7352' = 702' @ 82.6' FPH WOB 18,000-25,000 TOP DRIVE RPM 40-75 MUD MOTOR RPM 124 PUMPS 124 SPM= 558 GPM PUMP PRESSURE ON/OFF BTM 2,250 / 2056' TORQUE ON/OFF BTM 9,000/ 7,000 PICK UP WT 185,000 SLACK OFF WT 148,000 ROT WT 167,000 SLIDE 43' IN 60 MIN 6.90% OF FOOTAGE DRILLED, 2.57 %OF HRS DRILLED MUD WT 8.4 VIS 27, PUMPING 5-10 BBL SWEEPS EVERY STAND,W/ 3-4% SAWDUST,ANCO FIBER,CAL CARB NOV-D WATER SWACO OFF LINE 158 BBL FLUID LOSS

Operation Summary Report

Well: MORGAN	STATE 921-36A4BS	GREEN					Spud Date: 8/1	18/2012
Project: UTAH-U	JINTAH		Site: MOF	RGAN ST	ATE 921	-36A PAD		Rig Name No: PROPETRO 11/11, H&P 298/298
Event: DRILLING	3		Start Date	e: 7/19/20	12		***	End Date: 11/4/2012
Active Datum: R Level)	KB @4,949.00usft (a	bove Mean S	ea	UWI: NE	E/NE/0/9	/S/21/E/36/	D/0/26/PM/N/67	5/E/0/686/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
11/2/2012	15:00 - 0:00 0:00 - 8:30	9.00	DRLPRV	02	В	P	(MOLL)	DRILL /SLIDE / SURVEY/ F/ 7,352'- T/ 8,575 = 2,744' @ 116.7' FPH WOB 18,000-25/8,000 TOP DRIVE RPM 40-75 MUD MOTOR RPM 124 PUMPS 124 SPM= 558 GPM PUMP PRESSURE ON/OFF BTM 2,355 / 2,100 'TORQUE ON/OFF BTM 10,000/ 9,000 PICK UP WT 209,000 SLACK OFF WT 154,000 ROT WT 180,000 SLIDE 23' IN 60 MIN 11% OF FOOTAGE DRILLED, 8.34 %OF HRS DRILLED MUD WT 8.4 VIS 27, FLUID LOSS 123 BBLS PUMPING 5-10 BBL SWEEPS EVERY STAND,W/ 3-4% SAWDUST,ANCO FIBER,CAL CARB NOV-D WATER SWACO OFF LINE DRILL /SLIDE / SURVEY/ F/ 8575'- T/ 9,385 = 810' @ 95.2' FPH WOB 18,000-25,000 TOP DRIVE RPM 40-75 MUD MOTOR RPM 124 PUMPS 124 SPM= 558 GPM PUMP PRESSURE ON/OFF BTM 2,345 / 2,120 TORQUE ON/OFF BTM 8,000/ 6,000 PICK UP WT 209,000 SLACK OFF WT 170,000 ROT WT 188,000 MUD WT 8.4 VIS 27, 160BBL MUD LOSS PUMPING 5-10 BBL SWEEPS EVERY STAND,W/ 3-4% SAWDUST, ANCO FIBER,CAL CARB NOV-D WATER SWACO OFF LINE DISPLACE WITH 10.5# VIS 42 @ 9,235'
	8:30 - 11:30 11:30 - 12:00	3.00 0.50	DRLPRV DRLPRV	05 07	C A	P P		CCH F/ WPER TRIP TO CASING SHOE / MUD WT 10.9 VIS 42 LCM 12% RIG SERVICE
	12:00 - 13:00	1.00	DRLPRV	06	Α	Р		SHORT TRIP 10 STDS F/ 9,385' - T/ 8,445' NO TIGHT SPOTS / 1' OF FILL
	13:00 - 16:00	3.00	DRLPRV	05	В	P		CIRC. GAS OUT OF WELLBORE / BRING MUD WT. TO 11.7# / SPOT 90 BBL OF 12.0# ON BTM
	16:00 - 0:00	8.00	DRLPRV	06	A	P		TRIP OUT HOLE FOR CASING STAND BACK 11 STANDS / PUMP DRY JOB / L/D DRILL PIPE / BLEW DOWN KELLY HOSE / HOLE TOOK PROPER FILL / NO TIGHT SPOTS
11/3/2012	0:00 - 3:30	3.50	DRLPRV	06	Α	Р		TOOH LDDS / TIH 23 STANDS OUT OF DERRICK / LD DIRECTIONAL TOOLS
	3:30 - 4:30	1.00	CSGPRO	14	В	Р		PULL SMITH BEARING ASSEMBLY, INSTALL CASING ROTATING HEAD HOUSING, PULL WEAR BUSHING, X/O BAILS.
	4:30 - 5:30	1.00	CSGPRO	12	Ä	P		CTJSA RIG UP FRANKS CASING EQUIP

3/7/2013

9:01:04AM

Vell: MORGAN	STATE 921-36A4BS	GREEN					Spud Date: 8/1	18/2012				
roject: UTAH-L	JINTAH		Site: MOF	RGAN ST	ATE 921-	36A PAD		Rig Name No: PROPETRO 11/11, H&P 298/298				
vent: DRILLIN	G		Start Date	e: 7/19/20	112			End Date: 11/4/2012				
ctive Datum: R	RKB @4,949.00usft (at	oove Mean S	ea	UWI: NE	E/NE/0/9/	S/21/E/36	'0/0/26/ PM/N /67	I/N/675/E/0/686/0/0				
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation				
	5:30 - 14:00	8.50	CSGPRO	12	Ċ	Р		MAKE UP FLOAT EQUIP,RIH TEST SAME, F/ SURFACE -T/9376' / TIH 118 JTS LTC, 95 JTS DQX, MV MARKER JT @ 7387' DV TOOL SET @ 4,231' / WASHED BRIDGE F/8,832' - T/8,906' / HANGER LANDED W/105K				
	14:00 - 15:30	1.50	CSGPRO	05	D	Р		CONDITION AND CIRCULATE CASING / RIG DOWN CASING CREW / CTJSA W/BJ				
	15:30 - 18:00	2.50	CSGPRO	12	E	P		PUMP 1ST STAGE OF CEMENT, 25 BBLS SPACER; CEMENT 1080 SKS -14.3PPG -1.32 YIELD / 145 BBLS DISPLACEMENT, DROP BOMB - WAIT 30 MINS / STAGE TOOL OPENED @ 600PSI / PUMPED TOP PLUG / NO CEMENT TO SURFACE				
	18:00 - 22:00	4.00	CSGPRO	05	G	Р		DROP BOMB W/30 MINS / CIRCULATE OUT NO CEMENT (WAIT ON CEMENT)				
	22:00 - 0:00	2.00	ĊSGPRO	12	Ë	Ρ̈́		PUMP 2ND STAGE OF CEMENT, 25 BBLS SPACER; CEMENT 520 SKS -12.5PPG - 2.01/50 SKS -15.8PPG-1.15 YIELD / 65 BBLS DISPLACEMENT W/ 2 BBLS LEAD TO SURFACE / RD CEMENTERS				
11/4/2012	0:00 - 1:30	2.50	CSGPRO	12	Е	Р		FLUSH STACK / SET PACK OFF L/D SETTING TOOL, REMOVE CASING BAILS & ELEVATORS				
	1:00 - 8:00	7.00	RDMO	14	Α	P		CT-JSA NIPPLE DOWN BOPE / PREP FOR SKID / RELEASE RIG TO THE GUNNISON VALLEY FEE 22-9 @ 08:00 HRS 11/04/2012 (NOTE: 1 HR TIME CHANGE)				

3/7/2013

9:01:04AM

1 General

1.1 Customer Information

Company	US ROCKIES REGION	
Representative		
Address		

1.2 Well/Wellbore Information

Well	MORGAN STATE 921-36A4BS GREEN	Wellbore No.	ОН
Well Name	MORGAN STATE 921-36A4BS	Wellbore Name	MORGAN STATE 921-36A4BS
Report No.	1	Report Date	1/31/2013
Project	UTAH-UINTAH	Site	MORGAN STATE 921-36A PAD
Rig Name/No.	GWS 1/1	Event	COMPLETION
Start Date	1/31/2013	End Date	2/13/2013
Spud Date	8/18/2012	Active Datum	RKB @4,949.00usft (above Mean Sea Level)
UWI	NE/NE/0/9/S/21/E/36/0/0/26/PM/N/675/E/0/686/0/0		

1.3 General

Contractor	Job Method	pervisor	
Perforated Assembly	Conveyed Method		

1.4 Initial Conditions

1.5 Summary

Fluid Type		Fluid Density		Gross Interval	6,274.0 (usft)-9,211.0 (usft	Start Date/Time	2/4/2013 12:00AM
Surface Press		Estimate Res Press		No. of Intervals	50	End Date/Time	2/4/2013 12:00AM
TVD Fluid Top		Fluid Head	1	Total Shots	210	Net Perforation Interval	62.00 (usft)
Hydrostatic Press		Press Difference		Avg Shot Density	3.39 (shot/ft)	Final Surface Pressure	
Balance Cond	NEUTRAL					Final Press Date	

2 Intervals

2.1 Perforated Interval

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
2/4/2013 12:00AM	WASATCH/			6,274.0	6,277.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	

March 07, 2013 at 9:15 am 1 OpenWells

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/i Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
2/4/2013 12:00AM	WASATCH/			6,385.0	6,388.0	4.00		0.360	EXP/	3.375	90.00		1	PRODUCTIO N	
2/4/2013 12:00AM	WASATCH/			6,623.0	6,624.0	4.00		0.360	EXP/	3.375	90.00		1	PRODUCTIO N	
2/4/2013 12:00AM	WASATCH/			6,686.0	6,687.0	4.00		0.360	EXP/	3.375	90.00		1	PRODUCTIO N	
2/4/2013 12:00AM	WASATCH/		·	6,697.0	6,698.0	4.00		0.360	EXP/	3.375	90.00			PRODUCTIO N	
2/4/2013 12:00AM	WASATCH/			6,879.0	6,880.0	4.00	The state of the s	0.360	EXP/	3.375	90.00			PRODUCTIO N	
2/4/2013 12:00AM	WASATCH/			6,886.0	6,887.0	4.00		0.360	EXP/	3.375	90.00		1	PRODUCTIO N	
2/4/2013 12:00AM	WASATCH/		Transfer of the state of the st	6,898.0	6,899.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/4/2013 12:00AM	WASATCH/			6,924.0	6,926.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	According to the Manager
2/4/2013 12:00AM	WASATCH/			7,007.0	7,009.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/4/2013 12:00AM	WASATCH/			7,016.0	7,018.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/4/2013 12:00AM	WASATCH/			7,161.0	7,163.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			7,444.0	7,445.0	4.00	4	0.360	EXP/	3.375	90.00		: !	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			7,511.0	7,512.0	4.00		0.360	EXP/	3.375	90.00		: ;	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			7,612.0	7,613.0	4.00	The state of the s	0.360	EXP/	3.375	90.00			PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			7,649.0	7,650.0	4.00	And	0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/		The state of the s	7,673.0	7,675.0	4.00	And the state of t	0.360	EXP/	3.375	90.00	W-1200		PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/		Company of the Compan	7,740.0	7,741.0	3.00	A DE LES TAXABLES	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			7,773.0	7,774.0	3.00	V VIII LACORDINATA	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/			7,841.0	7,842.0	3.00		0,360	EXP/	3.375	120.00		ė,	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			7,905.0	7,906.0	3.00	Mariona (g. 110 - 11).	0.360	EXP/	3.375	120.00	Manual AA d and a second a second and a second a second and a second a second and a second and a second and a		PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			7,934.0	7,935.0	3.00	The state of the s	0.360	EXP/	3.375	120.00		1	PRODUCTIO N	

2.1 Perforated Interval (Continued)

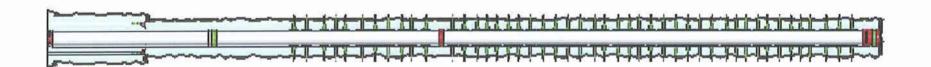
Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrum
2/4/2013 12:00AM	MESAVERDE/			7,972.0	7,973.0	3.00		0.360	EXP/	3,375	120.00		23.00	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			7,989.0	7,990.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			8,001.0	8,002.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			8,109.0	8,110.0	4.00		0.360	EXP/	3.375	90.00		,	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			8,119.0	8,120.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			8,245.0	8,246.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			8,308.0	8,309.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/	4		8,323.0	8,325.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			8,390.0	8,391.0	3.00	9	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			8,461.0	8,462.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			8,486.0	8,487.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			8,517.0	8,518.0	3.00	1	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			8,526.0	8,527.0	3.00		0.360	EXP/	3.375	120,00		23.00	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			8,545.0	8,546.0	3.00		0.360	EXP/	3.375	120.00			PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			8,577.0	8,579.0	3.00		0.360	EXP/	3.375	120.00	And the second s		PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			8,703.0	8,704.0	3.00		0.360	EXP/	3.375	120.00	110000 100000 100000 100000 100000 100000 100000 100000		PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			8,726.0	8,727.0	3.00		0.360	EXP/	3.375	120.00			PRODUCTIO N	- I I I I I I I I I I I I I I I I I I I
2/4/2013 12:00AM	MESAVERDE/			8,749.0	8,750.0	3.00		0.360	EXP/	3.375	120,00			PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/	_		8,817.0	8,818.0	3.00		0.360	EXP/	3.375	120.00		1	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			8,829.0	8,830.0	3.00		0.360	EXP/	3.375	120.00			PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			8,927.0	8,929.0	3.00		0.360	EXP/	3.375	120.00	Colon of Albania (1971)		PRODUCTIO N	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr. Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
2/4/2013 12:00AM	MESAVERDE/			8,985.0	8,986.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			9,000.0	9,001.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			9,026.0	9,027.0	3.00		0.360	EXP/	3.375	120,00		23.00	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			9,161.0	9,162.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			9,182.0	9,183.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			9,201.0	9,202.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/4/2013 12:00AM	MESAVERDE/			9,210.0	9,211.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

3 Plots

3.1 Wellbore Schematic



								REGION lary Report
Well: MORGAN	STATE 9	21-36A4BS	GREEN					Spud Date: 8/18/2012
Project: UTAH-U	IINTAH			Site: MO	RGAN ST	TATE 921-	36A PA	Rig Name No: GWS 1/1, ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLE	TION			Start Dat	e: 1/31/2	013		End Date: 2/13/2013
Active Datum: R Level)	KB @4,9	149.00usft (at	ove Mean Se	ea	UWI: N	E/NE/0/9/	S/21/E/3	36/0/0/26/PM/N/675/E/0/686/0/0
Date		Time tart-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)
11/28/2012	7:00	- 7:15	0.25	SUBSPR	48		Р	HSM, SLIPS, TRIPS, FALLS, RIGGING UP & DOWN, PU TBG
	7:15	- 17;00	9.75	SUBSPR	31	I	P	BACK FILL AROUND WELL HEADS, MIRU, SPOT EQUIP, ND WH, NU BOP, RU FLOOR & TBG EQUIP, SPOT TBG TRAILER INSTAL HAND RAILS, PU 3 7/8" BIT, BITSUB, TALLY & PU TBG TAGGED @ 4,085', RU P/S INSTAL WASH RUBBER, BREAK REV CIRC, D/O CMT & DV TOOL FROM 4,085' TO 4,231', SET P/S BACK, TALLY & PU TBG TO 6,000', DRAIN & WINTERIZE EQUIP, SWI, SDFN.
11/29/2012	7:00	- 7:15	0.25	SUBSPR	48		Р	HSM, SLIPS, TRIPS & FALLS, PU TBG, ROTARY, RIGGING DOWN & UP
	7:15	- 17:00	9.75	SUBSPR	31	Ì	Р	TALLY & PU TBG TÖ TAGGÉD @ 9,320', RU P/S & C/O TO PBTD @ 9,330',CIRC BTMS UP, RD P/S, L/D TBG, RD & MOVE TO M.S. 921-36A4CS TO D/O DV TOOL.
11/30/2012		-						
12/1/2012		-						
1/31/2013	9;00	- 10:00	1.00	SUBSPR	33	С	P	FILL SURFACE CSG. MIRU CAMERON QUICK TEST. 1ST PSI TEST T/7000 PSI, HELD FOR 15 MIN LOST 50 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI.
								PRESSURE TEST 8 5/8 X 4 1/2 TO 534 PSI HELD FOR 5 MIN LOST 124 PSI,BLED PSI OFF, REINSTALLED POP OFF SWIFN
2/1/2013	7:00	- 12:00	5.00	SUBSPR	37		P	PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEP PHASING, RIH PERF AS PER PERF

DESIGN, POOH, SWIFW

HSM, HIGH PRESSURE LINES & OVER HEAD LOADS

2/4/2013

6:45 - 7:00

0.25

FRAC

48

Nell: MORGAN	STATE 921-	36A4BS (REEN					Spud Date: 8/18/2012
Project: UTAH-				Site: MOF	RGAN ST	ATE 92	1-36A PAD	Rig Name No: GWS 1/1, ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPL	ETION			Start Date	: 1/31/20	013		End Date: 2/13/2013
Active Datum: I _evel)	RKB @4,949.0	00usft (ab	ove Mean Se	а	UWI: N	E/NE/0/9	/S/21/E/36/	0/0/26/PM/N/675/E/0/686/0/0
Date	Tim Start-i		Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)
	7:00 -	17:30	10.50	FRAC	36	В	Р	PERF & FRAC FOLLOWING WELL AS PER DESIGN W/ 30/50 MESH SAND & SLK WTR. ALL CBP'S ARE HALIBURTON 8K CBP'S. REFER TO STIM PJR FOR FLUID, SAND AND CHEMICL VOLUME PUM'D
								FRAC STG #1] WHP=1,538#, BRK DN PERFS=3,421#, @=4.9 BPM, INJ RT=51.5, INJ PSI=5,195#, INITIAL ISIP=2,461#, INITIAL FG=.71, FINAL ISIP=2,816#, FINAL FG=.75, AVERAGE RATE=51.2, AVERAGE PRESSURE=5,240#, MAX RATE=52.1, MAX PRESSURE=6,057#, NET PRESSURE INCREASE=355#, 21/21 100% CALC PERFS OPEN. X OVER TO WRE LINE
2/5/2013	7:00 -	7:15	0.25	FŘAĆ	48		Р	PERF STG #2] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,959', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW. SWIFN HSM, 0PENING / CLOSEING VALVES
		7:45	0.50	FRAC	46	Е	Z	BROKE FITTING ON VALVE

3/7/2013 9:20:19AM

2

INCREASE=958#, 19/21 91% CALC PERFS OPEN X OVER TO WAR LINE PERF STG #3] P/JU RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,609*, PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36* HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #3] WHP=1,649#, BRK DN PERFS-2,662#, @=-5. BPM, INJ RT=51.7, INJ PIS-15,069#, MITAL SID=2,115#, INJ LA LEG-6.9, FINAL ISIP=2,724#, FINAL FG-76, AVERAGE RATE=51.7, MAX PRESSURE=5,056#, MAX RATE=51.7, MAX PRESSURE=5,056#, MAX RATE=51.7, MAX PRESSURE=5,056#, MAX PRESSURE INCREASE=609#, 21/24 88% CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #4] PJU RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,355*, PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36* HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #4] WHP=#, BRK DN PERFS=#, @= BPM INJ RT=, INJ PSI=#, INITIAL ISIP=#, INITIAL FG=, FINAL ISIP=#, FINAL FG=, AVERAGE RATE=, AVERAGE PRESSURE=#, MAX PRESSURE #, MAX PRESSURE #, MAX PRESSUR	Vell: MORGAN STATE 921-36A4BS GREI	<u>EN</u>			Spud Date: 8	/18/2012
Active Datum: RKB @4.449.00usR (above Mean Sea) UWI: NENEOI9IS/21/E/36/00/25/PMINI675/E/0656/00 Date Time Duration (h) Phase Code Sub PU MID From Qeration (start-End (h) Phase Code (usft) 7.45 - 17:00 9.25 FRAC 36 B P FRAC STG #2] WHP=1,556#, BRK DN PERFS-3,216#, @-4,7 BPM, INJ RT=51.1, INJ PSI-5,516#, INITIAL ISIP=2,056#, INITIAL FG-87, FINAL ISIP=3,018*, INITIAL FG-87, FINAL ISIP=3,018*, INITIAL FG-87, FINAL ISIP=3,018*, INITIAL FG-88, FIRF GUN, ST CORP @-6,009*, PERF MESAVERDE USING 3-18 EXPEND, 23 GRM, 0.36* HOLE AS PERFSY IN PROCEDURE, X OVER 10 WHP=1,646#, BRK DN PERFS-2,268.2 @-5.1 BPM, INITIAL FG-88, FINAL ISIP=2,724#, FINAL FG-76, AVERAGE RATE-51, MIN RT=51.7, INJ PSI-51,516#, INITIAL FG-88, FINAL ISIP=3,176*, INITIAL FG-88, FINAL ISIP=2,174#, FINAL FG-76, AVERAGE RATE-51,764*, PERSSURE-5,0586*, MAX RATE-51.7, MAX PRESSURE-5,0586*, MAX RATE-51.7, MAX PRESSURE-6,0586*, MAX RATE-51.7, MAX PRESSURE-6,0586*, MAX RATE-51.7, MAX PRESSURE-6,0586*, MAX RATE-51.7, MAX PRESSURE-8,		Site: MOF	RGAN STATE 92	-36A PAD		·
Date	vent: COMPLETION	Start Date	: 1/31/2013			End Date: 2/13/2013
Start-End (by)	<u> </u>	Mean Sea	UWI: NE/NE/0/9	/S/21/E/36	/0/0/26/ PM/N /6	75/E/0/686/0/0
PERFS-2,166, @=4.7 BPM, INJ RT-51.1, INJ PSI=5,10H, INITAL FG-67, FINAL ISIP>2,055H, INITAL FG-67, FINAL ISIP>2,055H, INITAL FG-67, FINAL ISIP>3,013H, FINAL FG-67, FINAL ISIP>3,013H, FINAL FG-67, FINAL ISIP>3,013H, FINAL FG-67, FINAL ISIP>3,013H, FINAL FG-67, FINAL ISIP>3,012H, FINAL FG-69, FINAL ISIP>4,02H, FINAL FG-69, FINAL ISIP>2,02H, FINAL FG-69, FINAL ISIP>2,15H, FINAL FG-69, FINAL ISIP>2,15H, FINAL FG-69, FINAL ISIP>2,15H, FINAL FG-69, FINAL ISIP>2,15H, FINAL FG-69, FINAL FG-69, FINAL ISIP>2,15H, FINAL FG-69, FINAL ISIP>3,15H, FINAL FG-69, FINAL ISIP>4,15H, FINAL FG-69, FINAL FG-69, FINAL FG-69, FINAL ISIP>4,15H, FINAL FG-69, FINAL FG	Start-End	(hr)	Code		Draw Clark Control of the	Operation
PSI=4,885#, INITIAL ISIP=2,180#, INITIAL FG=.72, FINAL ISIP=2,737#, FINAL FG=.79, AVERAGE RATE=51.6, AVERAGE PRESSURE=5,035#, MAX RATE=52.1, MAX PRESSURE=5,560#, NET PRESSURE INCREASE=557#, 23/24 96% CALC PERFS OPEN. X OVER TO WIRE LINE		· · · · · · · · · · · · · · · · · · ·		P P	(USII)	PERFS=3,216#, @=4.7 BPM, INJ RT=51.1, INJ PSI=5,510#, INITIAL ISIP=2,055#, INITIAL FG=.67, FINAL ISIP=3,013#, FINAL FG=.78, AVERAGE RATE=48.9, AVERAGE PRESSURE=5,648#, MAX RATE=51, MAX PRESSURE=6,170#, NET PRESSURE INCREASE=958#, 19/21 91% CALC PERFS OPEN. X OVER TO WRE LINE PERF STG #3] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,609', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #3] WHP=1,649#, BRK DN PERFS=2,662#, @=5.1 BPM, INJ RT=51.7, INJ PSI=5,180#, INITIAL ISIP=2,115#, INITIAL FG=.69, FINAL ISIP=2,724#, FINAL FG=.76, AVERAGE RATE=50.2, AVERAGE PRESSURE=5,630#, NET PRESSURE INCREASE=609#, 21/24 88% CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #4] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,355', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #4] WHP=#, BRK DN PERFS=#, @= BPM, INJ RT=, INJ PSI=#, INITIAL FG=., FINAL ISIP=#, FINAL FG=., AVERAGE RATE=, AVERAGE PRESSURE=#, MAX RATE=5.1 INJ PSI=#, INITIAL ISIP=#, INITIAL FG=., FINAL ISIP=#, FINAL FG=., AVERAGE RATE=, AVERAGE PRESSURE=#, MAX RATE=, MAX PRESSURE=#, NET PRESSURE INCREASE=#, CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #5] P/U RIH W/ HALIBURTON 8K CBP & PERFS OPEN. X OVER TO WIRE LINE PERF STG #5] P/U RIH W/ HALIBURTON 8K CBP & PERFS OPEN. X OVER TO WIRE LINE PERF STG #5] P/U RIH W/ HALIBURTON 8K CBP & PERFS OPEN. X OVER TO WIRE LINE PERF STG #5] P/U RIH W/ HALIBURTON 8K CBP & PERFS OPEN. X OVER TO WIRE LINE PERF STG #5] P/U RIH W/ HALIBURTON 8K CBP & PERFS OPEN. X OVER TO WIRE LINE PERF STG #5] P/U RIH W/ HALIBURTON 8K CBP & PERFS OPEN. X OVER TO WIRE LINE PERFS STG #5] WHP=1,720#, BRK DN PERFS=3,154#, @=4.8 BPM, INJ RT=51.5, INJ PSI=4,865#, INITIAL ISIP=2,180#, INITIAL FG=.72, FINAL ISIP=2,737#, FINAL FG=.79, AVERAGE RATE=51.6, AVERAGE PRESSURE=5,035#, MAX RATE=52.1, MAX PRESSURE=5,035#, MAX RATE=52.1, MAX PRESSURE=5,035#, MAX RATE=52.1, MAX PRESSURE=5,035#, MAX RATE=52.1 MAX PRESSURE=5,035
FINDALINE AUDIN BUILDAGGA						PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #6] WHP=1,167#, BRK DN

US ROCKIES REGION Operation Summary Report Well: MORGAN STATE 921-36A4BS GREEN Spud Date: 8/18/2012 Project: UTAH-UINTAH Site: MORGAN STATE 921-36A PAD Rig Name No: GWS 1/1, ROCKY MOUNTAIN WELL SERVICE 3/3 Event: COMPLETION Start Date: 1/31/2013 End Date: 2/13/2013 UWI: NE/NE/0/9/S/21/E/36/0/0/26/PM/N/675/E/0/686/0/0 Active Datum: RKB @4,949.00usft (above Mean Sea Level) Date Phase Code Time Duration Sub P/U MD From Operation Start-End (hr) Code (usft) PERFS=2,876#, @=5.1 BPM, INJ RT=51.5, INJ PSI=4,647#, INITIAL ISIP=1,714#, INITIAL FG=.67, FINAL ISIP=2,253#, FINAL FG=.74, AVERAGE RATE=51.6, AVERAGE PRESSURE=4,782#, MAX RATE=56.5, MAX PRESSURE=5,399#, NET PRESSURE INCREASE=539#, 21/24 88% CALC PERFS OPEN. X OVER TO WIRE LINE

Р

SWIFN.

HSM, OVER HEAD LOADS / RIGGING DOWN

2/6/2013

6:30

- 6:45

0,25

FRAC

48

Well: MORGAN S	TATE 921-36A4BS (GREEN					Spud Date: 8/1	8/2012
Project: UTAH-UII	NTAH		Site: MOI	RGAN STA	ATE 921-	36A PAD	-	Rig Name No: GWS 1/1, ROCKY MOUNTAIN WELL SERVICE 3/3
vent: COMPLET	ION		Start Date	e: 1/31/20	13		-	End Date: 2/13/2013
ctive Datum: RK evel)	B @4,949.00usft (ab	ove Mean Se	ea	UWI: NE	/NE/0/9/	S/21/E/36/0)/0/26/ PM/N /67	5/E/0/686/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:45 - 14:00	7.25	FRAC	36	В	Р		PERF STG #7] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,193', PERF WASATCH USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW
								FRAC STG #7] WHP=230#, BRK DN PERFS=2,986#, @=5.1 BPM, INJ RT=51.5, INJ PSI=5,261#, INITIAL ISIP=1,370#, INITIAL FG=.63, FINAL ISIP=2,540#, FINAL FG=.80, AVERAGE RATE=51.5, AVERAGE PRESSURE=6,128#, MAX RATE=52.1, MAX PRESSURE=5,731#, NET PRESSURE INCREASE=1,170#, 16/24 67% CALC PERFS OPEN. X OVER TO WIRE LINE
								PERF STG #8] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=6,909', PERF WASATCH USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW
								FRAC STG #8] WHP=1,959#, BRK DN PERFS=2,284#, @=5.4 BPM, INJ RT=51.3, INJ PSI=4,732#, INITIAL ISIP=1,975#, INITIAL FG=.73, FINAL ISIP=2,171#, FINAL FG=.76, AVERAGE RATE=51.1, AVERAGE PRESSURE=4,670#, MAX RATE=52.1, MAX PRESSURE=5,397#, NET PRESSURE INCREASE=196#, 21/24 88% CALC PERFS OPEN. X OVER TO WIRE LINE
								PERF STG #9] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=6,418', PERF WASATCH USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW
								FRAC STG #9] WHP=758#, BRK DN PERFS=2,365#, @=4.8 BPM, INJ RT=51, INJ PSI=5,404#, INITIAL ISIP=1,206#, INITIAL FG=.63, FINAL ISIP=1,592#, FINAL FG=.69, AVERAGE RATE=51.1, AVERAGE PRESSURE=4,400#, MAX RATE=51.6, MAX PRESSURE=5,547#, NET PRESSURE INCREASE=387#, 15/24 63% CALC PERFS OPEN. X OVER TO WIRE LINE
								P/U RIH W/ HALIBURTON 8K CBP, SET FOR TOP KILI @=6,224'
2/12/2013	7:00 - 7:15	0.25	DRLOUT	48		Р		TOTAL FLUID PUMP'D=8,367 BBLS TOTAL SAND PUMP'D=184,566# HSM-JSA
	7:15 - 15:00	7.75	DRLOUT	31	I	Р		RDMO MORGAN STATE 8-36, MIRU, NDWH, NUBOP, PU 3 7/8" BIT & POBS W/ XN SN RIH W/ 195 JTS 2 3/8" L-80 TAG FILL @ 6,210', LD 2 JTS TBG, RU
2/13/2013	7:00 = 7:15	0.25	DRLOUT	48		Ë		PWR SWVL, SWI, SDFN. HSM-JSA

3/7/2013

9:20:19AM

Meli-Moroan a	STATE 024 264 480 1	2DEEM	<u>ad Germilik.</u>	<u> </u>	<u> </u>	18 18 11 11 11 11 11 11 11 11 11 11 11 1	ry Report	8/2012
Project: UTAH-UI	STATE 921-36A4BS (INTAH	JNEEN	Site: MOF	RGAN ST	ATE 921	-36A PAD	Spud Date: 8/1	Rig Name No: GWS 1/1, ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLET	TION		Start Date	e: 1/31/20	113	$\overline{}$		End Date: 2/13/2013
	KB @4,949.00usft (ab	ove Mean Se		1		/S/21/E/36/	/0/0/26/PM/N/67	
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 16:00	8.75	DRLOUT	_ 				BRK CIRC, PRESS TEST BOP TO 3,000 PSI, LOST 0 PSI IN 15 MIN.
								C/O 14' SAND TAG PLUG # 1 @ 6,224', DRL HAL 8K CBP IN 10 MIN, 100 PSI INC, FCP 0 PSI, RIH TAG FILL @ 6,388'.
								C/O 30' SAND TAG PLUG #2 @ 6,418', DRL HAL 8K CBP IN 8 MIN, 200 PSI INC, FCP 50 PSI, RIH TAG FILL @ 6,889'.
								C/O 20' SAND TAG PLUG #3 @ 6,909', DRL HAL 8K CBP IN 5 MIN, 0 PSI INC, FCP 50 PSI, RIH TAG FILL @ 7,163'.
								C/O 30' SAND TAĞ PLUG #4 @ 7,193', DRL HAL 8K CBP IN 5 MIN, 300 PSI INC, FCP 200 PSI, RIH TAG FILL @ 7,680'.
								C/O 25' SAND TAG PLUG #5 @ 7,705', DRL HAL 8K CBP IN 11 MIN, 500 PSI INC, FCP 300 PSI, RIH TAG FILL @ 8,002'.
								C/O 30' SAND TAG PLUG # 6 @ 8,032', DRL HAL 8K CBP IN 6 MIN, 0 PSI INC, FCP 300 PSI, RIH TAG FILL @ 8,330'.
								C/O 25' SAND TAG PLUG #7 @ 8,355', DRL HAL 8K CBP IN 8 MIN, 400 PSI INC, FCP 400 PSI, RIH TAG FILL @ 8,574'.
								C/O 35' SAND TAG PLUG #8 @ 8,609', DRL HAL 8K CBP IN 6 MIN, 500 PSI INC, FCP 600 PSI, RIH TAG FILL @ 8,929'.
								C/O 30' SAND TAG PLUG #9 @ 8,959', DRL HAL 8K CBP IN 6 MIN, 0 PSI INC, FCP 600 PSI, RIH TAG FILL @ 9,304', (93' BLW BTM PERF), CIRC CLEAN, RD PWR SWWL, POOH LD 20 JTS TBG, LAND TBG W/273 JTS 2 3/8" L-80 EOT @ 8,676.67', RD FLOOR & TBG EQUIP, NDBOP, NUWH, DROP BALL POBS @ 1,700 PSI, PRESS TEST FLOWLINE BETWEEN HAL 9,000 & WELLHEAD TO 3,000 PSI, LET BIT FALL 20 MIN TURN OVER TO FBC, DRAIN UP EQUIP, SDFN.
í								KB-26' HANGER83' 273 JTS 2 3/8" L-80-8,647.64'
								POBS W/ XN SN-2.20' EOT @ 8,676.67'
								TWTR=8,977 BBLS TWR=2,280 BBLS TWLTR=6,697 BBLS

3/7/2013 9:20:19AM

				REGION nary Repor	
Well: MORGAN STATE 921-36A4BS GRE	EN			Spud Date: 8	8/18/2012
Project: UTAH-UINTAH	Site: MOF	RGAN STAT	E 921-36A F	PAD PAD	Rig Name No: GWS 1/1, ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLETION	Start Date	e: 1/31/2013			End Date: 2/13/2013
Active Datum: RKB @4,949.00usft (above Level)	Mean Sea	UWI: NE/N	E/0/9/S/21/F	E/36/0/0/26/PM/N/	675/E/0/686/0/0
	uration Phase (hr)		ode P/L	MD From (usft)	Operation
16:00 - 16:00	Ö.ÖÖ DRLOUT	50			WELL TURNED TO SALES @ 1600 HR ON 2/13/2013. 3100 MCFD, 1920 BWPD, FCP 2474#, FTP 2412#, 20/64" CK.
2/15/2013 7:00 -		50			WELL IP'D ON 2/15/13 - 2487 MCFD, 0 BWPD, 0 BOPD, CP 2508#, FTP 1830#, LP 105#, 24 HRS, CK

20/64

3/7/2013 9:20:19AM 7

Project: UTAH - UTM (feet), NAD27, Zone 12N UINTAH MORGAN STATE 921-36A PAD

Well: MORGAN STATE 921-36A4BS Wellbore: MORGAN STATE 921-36A4BS Section: NE ½ NE ½ SEC. 36-T9S-R21E SHL: 675' FNL 686' FEL.

Design: MORGAN STATE 921-36A4BS (wp01)

Latitude: 39.997919 Longitude: -109.492411 GL: 4923.00

KB: 15'RKB+4923'GL @ 4938.00ft

FORMATION TOP DETAILS

TVDPath MDPath 1258.00 1576.00 1260.12 1578.96 2040.79 4544.66 5144.67 7211.70 2037.00 4539.00 5139.00 9380 00 9385.73

Formation. GREEN RIVER BIRDS NEST MAHOGANY MARKER WASATCH INTERCEPT MESAVERDE **SEGO**



Weatherford[®]

WELL DETAILS: MORGAN STATE 921-36A4BS

Ground Level: Easting 2062650.87 4923.00 Latittude 39.997919 +N/-S 0.00 Northing 14528857.59 Longitude -109.492411 Slot

CASING DETAILS TVD MD Size



Azimuths to True North Magnetic North: 10.90°

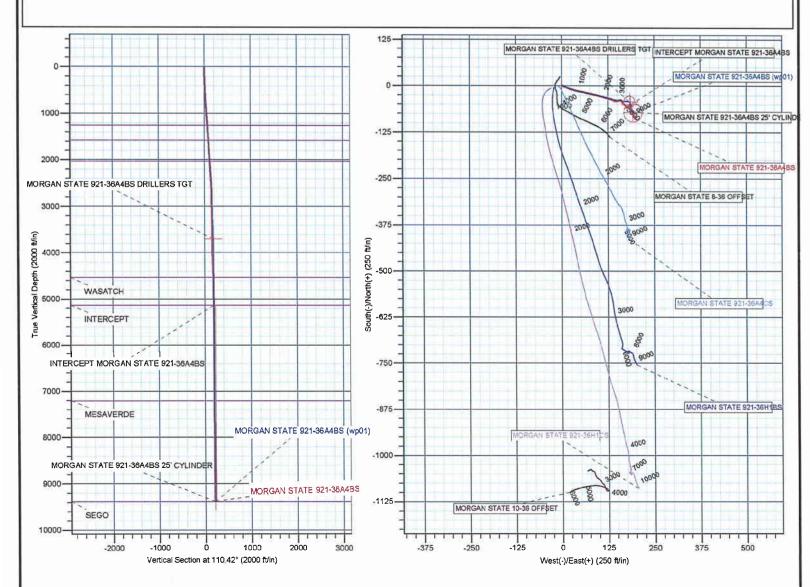
Magnetic Field Strength: 52199.3snT Dip Angle: 65.83° Date: 10/5/2012 Model: IGRF2010

DESIGN	TARGET	DETAILS	

INTE	e	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
	IGAN STATE 921-36A4BS DRILLERS TOT	3700.00	-42.00	183.00	14528818.69	2062834.56	39.997804	-109.491758	Circle (Radius: 15.00)
	RRCEPT MORGAN STATE 921-36A4BS	5139.00	-49.33	185.40	14528811.41	2062837.08	39.997784	-109.491749	Point
	IGAN STATE 921-36A4BS 25' CYLINDER	9380.00	-71.75	192.73	14528789.11	2062844.79	39.997722	-109.491723	Circle (Radius: 25.00)

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dieg	TFace	VSect
2463.00	3.47	109.46	2458.35	-35.48	134.56	0.00	0.00	138.48
2527.33	2.34	97.18	2522.59	-36.30	137.69	2.00	-157.27	141.71
3588.81	2.34	97.18	3583.19	-41.70	180.64	0.00	0.00	183.84
3705.65	0.00	0.00	3700.00	-42.00	183.00	2.00	180.00	186.15
3811.88	0.32	161.90	3806.23	-42.28	183.09	0.30	161.90	186.34
9385.73	0.32	161.90	9380.00	-71.75	192.73	0.00	0.00	205.65





US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N UINTAH_MORGAN STATE 921-36A PAD MORGAN STATE 921-36A4BS

MORGAN STATE 921-36A4BS

Design: MORGAN STATE 921-36A4BS

Standard Survey Report

06 November, 2012





Survey Report



Company: Project:

Site:

Well:

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N UINTAH_MORGAN STATE 921-36A PAD

Wellbore: Design:

MORGAN STATE 921-36A4BS MORGAN STATE 921-36A4BS MORGAN STATE 921-36A4BS Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Database:

Well MORGAN STATE 921-36A4BS

15'RKB+4923'GL @ 4938,00ft 15'RKB+4923'GL @ 4938.00ft

True

Minimum Curvature

edmp

Project

UTAH - UTM (feet), NAD27, Zone 12N

Map System: Geo Datum:

Universal Transverse Mercator (US Survey Feet)

NAD 1927 (NADCON CONUS)

Map Zone:

Zone 12N (114 W to 108 W)

System Datum:

Mean Sea Level

Site

UINTAH_MORGAN STATE 921-36A PAD

Site Position: From:

Lat/Long

Northing: Easting:

14,528,850.91 usft

Latitude:

39.997902

Position Uncertainty:

Slot Radius:

2,062,621.57 usft

Longitude:

-109.492516

0.00 ft

MORGAN STATE 921-36A4BS

13-3/16 '

Grid Convergence:

0.97°

Well Well Position

0.00 ft 0.00 ft

Northing: Easting:

14,528,857.60 usft 2,062,650.87 usft Latitude: Longitude:

39.997919 -109.492411

Position Uncertainty

0.00 ft

Wellhead Elevation:

ft

Ground Level:

4,923,00 ft

Wellbore MORGAN STATE 921-36A4BS

+N/-S

+E/-W

Declination Magnetics **Model Name** Sample Date Dip Angle Field Strength (°) (°) (nT) IGRE2010 10.90 10/5/2012 65.83 52,199

Design

MORGAN STATE 921-36A4BS

Audit Notes:

Version:

1.0

Phase:

ACTUAL

Tie On Depth:

11.00

113.61

Depth From (TVD)

+E/-W

0.00

Direction

Vertical Section:

From

(ft)

16.00

+N/-S (ft)

0.00

(ft)

(°)

11/6/2012 **Survey Program** Date

> To (ft) Survey (Wellbore)

Tool Name

Description

2,562,00

2,463.00 Survey #1 (MORGAN STATE 921-36A4BS 9,385.00 Survey #2 (MORGAN STATE 921-36A4BS MWD MWD MWD - STANDARD MWD - STANDARD

		98	
S			

Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100usft)	(°/100usft)	(°/100usft)
11.00	0.00	0.00	11.00	0.00	0.00	0.00	0.00	0.00	0.00
154.00	0.18	46.52	154.00	0.15	0.16	0.09	0.13	0.13	0.00
184.00	0.26	44.68	184.00	0.24	0.25	0.13	0.27	0.27	-6.13
211.00	0.35	52.59	211.00	0.33	0.35	0.19	0.37	0.33	29.30
239.00	0.44	55.66	239.00	0.44	0.51	0.29	0.33	0.32	10.96
267.00	0.62	56.98	267.00	0.58	0.73	0.43	0.64	0.64	4.71
293.00	0.70	69,37	293.00	0.72	0.99	0.62	0.63	0.31	47.65
322.00	0.97	88.18	321.99	0.79	1.40	0.97	1.31	0.93	64.86
350.00	1.41	98.03	349.99	0.75	1.98	1.52	1.73	1.57	35.18
440.00	2,29	116.92	439.94	-0.22	4.68	4.38	1.18	0.98	20.99



Survey Report



Company: Project Site:

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N UINTAH_MORGAN STATE 921-36A PAD MORGAN STATE 921-36A4BS

Wells MORGAN STATE 921-36A4BS Wellbore: MORGAN STATE 921-36A4BS TVD Reference: MD Reference: North Reference: **Survey Calculation Method:**

Well MORGAN STATE 921-36A4BS Local Co-ordinate Reference: 15'RKB+4923'GL @ 4938.00ft 15'RKB+4923'GL @ 4938.00ft True Minimum Curvature

sign: MO	RGAN STATE 9	21-36A4BS		Database:		6	edmp		
rvey									
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(ft)	(°)	(°)	(ft)	(m)	(ft)	(ft)	(°/100usft)	(°/100usft)	(°/100usft)
530.00	3.25	114.37	529.83	-2.09	8.61	8.72	1.08	1.07	-2.83
620.00	3.78	112.53	619.66	-4.28	13.67	14.24	0.60	0.59	-2.04
710.00	4.04	113.76	709.45	-6.69	19.31	20.38	0.30	0.29	1.37
800.00	4.04	109.72	799.23	-9.04	25.20	26.71	0.32	0.00	-4.49
890.00	4.22	102.24	889.00	-10.81	31.42	33,12	0.63	0.20	-8.31
980.00	4.57	102.60	978.73	-12.30	38.16	39.89	0.39	0.39	0.40
1,070.00	4.57	102.51	1,068.45	-13.85	45.16	46.92	0.01	0.00	-0.10
1,160.00	4.40	103.47	1,158.17	-15.43	52.01	53.84	0.21	-0.19	1.07
1,250.00	4.31	102,51	1,247.91	-16.97	58.67	60.56	0.13	-0.10	-1.07
1,340.00	4.22	101.37	1,337.66	-18.36	65,22	67.11	0.14	-0.10	-1.27
1,430.00	4.22	99.52	1,427.42	-19.56	71.73	73.56	0.15	0.00	-2.06
1,520,00	4.04	101.72	1,517.18	-20.75	78.10	79.87	0.13	-0.20	-2.00 2.44
1,610.00	3.78	102.51	1,606.97	-22.04	84.10	85.89	0.30	-0.29	0.88
1,700.00	3.69	103.39	1,696.78	-23.35	89.82	91.65	0.30	-0.29	0.88
1,790.00	3.69	104.27	1,786.60	-24.73	95.44	97.36	0.06	0.00	0.98
1,880.00	3.34	106.38	1,876.43	-26.19	100.76	102,82	0.41	-0.39	2.34
1,970.00	2,90	105,50	1,966.29	-27.53	105.75	107.67	0.49	-0.49	-0.98
2,060.00	2.81	106.64	2,056.18	-28.77	109.78	112.11	0.12	-0.49	1.27
2,150.00	3.25	109.72	2,146.06	-30.27	114.30	116.85	0.12	0.49	3.42
2,240.00	3.87	106.81	2,235.88	-32.01	119.60	122.41	0.72	0.69	-3.23
2,330.00	4.31	99.34	2,325.65	-33.43	125,85	128.70	0.77	0.49	-8.30
2,420.00	3.69	104.44	2,415.43	-34.70	131.99	134.84	0.79	-0.69	-8.30 5.67
2,463.00	3.47	109.46	2,458,35	-35.48	134.56	137.50	0.89		
TIE ON	3.47	109.40	2,436,33	-33,46 XXXXXXXXXXX	134.30	137.50	0.09	-0.51	11.67
	3.01	122 14	2 557 20	20.06	420.00	142.04	4.40	0.46	00.00
2,562.00	3.01	133.14	2,557.20	-38.26	139.28	142.94	1.42	-0.46	23.92
FIRST MWD 2,656.00	2.15	104.79	2,651.10	-40.40	142.79	147.01	1.61	-0,91	-30.16
0.754.00		74.00	074005	10.00	4.5.00				
2,751.00	1.81	71.02	2,746.05	-40.36	145.93	149.88	1.26	-0.36	-35.55
2,845.00	0.56	80.93	2,840.03	-39.81	147.78	151.36	1.34	-1.33	10.54
2,940.00	1.38	81.85	2,935.01	-39.57	149.38	152.72	0.86	0.86	0.97
3,035.00	1.38	95.43	3,029.99	-39.52	151.65	154.78	0.34	0.00	14.29
3,129.00	1.44	62.06	3,123.96	-39,07	153.82	156.59	0.86	0.06	-35.50
3,224.00	1.19	69.68	3,218.93	-38.17	155.80	158.04	0.32	-0.26	8.02
3,318.00	0.88	72.93	3,312.92	-37.62	157.40	159.29	0.34	-0.33	3.46
3,413.00	0.69	101.81	3,407.91	-37.52	158.66	160.40	0.46	-0.20	30.40
3,507.00	0.88	112.68	3,501.90	-37.92	159.88	161.68	0.26	0.20	11.56
3,602.00	0.88	132.81	3,596.89	-38.69	161.09	163.10	0.32	0.00	21.19
3,697.00	1.00	149.31	3,691.88	-39.90	162.05	164.46	0.31	0.13	17.37
3,791.00	1.06	197.18	3,785.86	-41.44	162.21	165.22	0.89	0.06	50.93
3,886.00	0.94	123.81	3,880.85	-42,71	162.60	166.09	1.26	0.13	-77.23
3,981.00	1.25	132.68	3,975.84	-43.85	164.01	167.84	0.37	0.33	9.34
4,076.00	1.63	134.18	4,070.81	-45.49	165.74	170.08	0.40	0.40	1,58
4,170.00	1.88	142.68	4,164.76	-47.65	167.63	172.68	0.38	0.27	9.04



Survey Report



Company: Project: Site: Well:

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N UINTAH MORGAN STATE 921-36A PAD MORGAN STATE 921-36A4BS

Wellbore: MORGAN STATE 921-36A4BS MORGAN STATE 921-36A4BS Design:

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Database:

Well MORGAN STATE 921-36A4BS 15'RKB+4923'GL @ 4938.00ft 15'RKB+4923'GL @ 4938.00ft

True

Minimum Curvature

edmp

urvey.									
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100usft)	(°/100usft)	(°/100usft)
4,264.00	1.19	121.18	4,258.73	-49.38	169.40	175.00	0.94	-0.73	-22.87
4,359.00	1.31	127.56	4,353.71	-50.55	171.10	177.03	0.19	0.13	6.72
4,453.00	1.44	140.18	4,447.68	-52.12	172.71	179.13	0.35	0.14	13.43
4,548.00	1.50	159,56	4,542.65	-54.20	173.91	181.06	0.52	0.06	20.40
4,642.00	1.81	155,31	4,636.61	-56.70	174.96	183,02	0.35	0.33	-4.52
4,737.00	0.31	109.06	4,731.59	-58.15	175.83	184.40	1.70	-1.58	-4 8.68
4,832.00	0.56	62,68	4,826.59	-58.02	176.49	184.95	0.43	0.26	-48.82
4,926.00	1.94	40.56	4,920.56	-56.60	177.93	185.70	1.53	1.47	-23.53
5,021.00	1.63	47.43	5,015.52	-54.46	179.97	186.72	0.40	-0.33	7.23
5,115.00	1.25	53.06	5,109.49	-52.94	181.77	187.76	0.43	-0.40	5.99
5,209.00	1.06	66.06	5,203.47	-51.97	183.39	188.85	0.34	-0.20	13.83
5,304.00	0.94	79.18	5,298.45	-51.47	184.96	190.09	0.27	-0.13	13.81
5,398.00	0.81	101.18	5,392.44	-51.45	186.37	191.37	0.38	-0.14	23.40
5,493.00	1.19	104.31	5,487.43	-51.83	187.98	193.00	0.40	0.40	3.29
5,588.00	0.50	278.31	5,582.42	-52.01	188.53	193.57	1.78	-0.73	183.16
5,682.00	0.44	247.81	5,676.42	-52.09	187.79	192.93	0.27	-0.06	-32,45
5,776.00	0.50	227.43	5,770.42	-52.50	187.15	192.51	0.19	0.06	-21.68
5,871.00	0.56	188.18	5,865.41	-53.24	186.78	192.47	0.38	0.06	-41.32
5,965.00	0.69	201.56	5,959.41	-54.22	186.50	192.61	0.21	0.14	14.23
6,060.00	0.81	185.31	6,054.40	-55.42	186.23	192.84	0.26	0.13	-17.11
6,154.00	1.19	168,93	6,148.39	-57.04	186.36	193.60	0.50	0.40	-17.43
6,249.00	1.06	330.93	6,243.38	-57.24	186.12	193.47	2.34	-0.14	170.53
6,343.00	0.38	309.56	6,337.37	-56.29	185.46	192.48	0.77	-0.72	-22.73
6,438.00	0.19	208.68	6,432.37	-56.22	185.14	192.16	0.48	-0.72	-106.19
0,400.00	0.13	200.00	0,402.07	-50.22	100.14	192.10	0.40	-0.20	-100.19
6,532.00	0.44	186.06	6,526.37	-56.72	185.03	192.25	0.29	0.27	-24.06
6,627.00	0.81	155.56	6,621.36	-57.69	185.27	192.86	0.51	0.39	-32.11
6,721.00	1.81	336.68	6,715.35	-56.93	184.95	192.27	2.79	1.06	-190.30
6,816.00	1.19	338,16	6,810.32	-54.64	183.99	190.47	0.65	-0.65	1.56
6,910.00	0.94	349.93	6,904.30	-52.98	183.49	189.35	0.35	-0.27	12.52
7,005.00	0.81	355.31	6,999.29	-51.54	183.30	188.60	0.16	-0.14	5.66
7,099.00	0.38	351.43	7,093.29	- 50.57	183.20	188.12	0.46	-0.46	-4.13
7,194.00	0.13	52.68	7,188.29	- 50.19	183.24	188.00	0.36	-0.26	64.47
7,288.00	0.31	138.18	7,282.29	-50.32	183.50	188.29	0.35	0.19	90.96
7,383.00	0.69	115.81	7,377.28	-50.76	184.18	189.09	0.44	0.40	-23.55
7,477.00	0.88	125.18	7,471.27	-51.42	185.28	190.36	0.24	0.20	9.97
7,572.00	1.06	137.06	7,566.26	-52.48	186.48	191.88	0.28	0.19	12.51
7,666.00	1.38	143.81	7,660.24	-54.03	187.74	193.66	0.37	0.34	7.18
7,760.00	0.69	5.81	7,754.23	-54.38	188.46	194.47	2.07	-0.73	-146.81
7,855.00	0.56	314.31	7,849.23	-53.49	188.19	193.86	0.58	-0.14	-54.21
7,949.00	0.31	294.31	7,943.22	-53.07	187.63	193.17	0.31	-0.27	-21.28
8,044.00	0.19	216.56	8,038.22	-53.09	187.30	192.88	0.34	-0.13	-81.84
8,138.00	0.38	182.18	8,132.22	-53.52	187.20	192.96	0.26	0.20	-36.57
8,233.00	0.69	167.93	8,227.22	-54.40	187.30	193,41	0.35	0.33	-15.00
8,327.00		173.81	8,321.20	-55.87	187.52	194.20	0.48	0.47	6.26



Survey Report



Company: Project: Site: US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N UINTAH_MORGAN STATE 921-36A PAD

Well: MOR Wellbore: MOR Design: MOR

MORGAN STATE 921-36A4BS MORGAN STATE 921-36A4BS MORGAN STATE 921-36A4BS Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Database:

Survey Calculation Method:

Well MORGAN STATE 921-36A4BS

15'RKB+4923'GL @ 4938.00ft 15'RKB+4923'GL @ 4938.00ft

True

Minimum Curvature

edmp

Measured Depth In (ft)	clination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,422.00	1.19	184.06	8,416.18	-57.79	187.55	195.00	0.23	0.06	10.79
8,516.00	1.31	183.43	8,510.16	-59.83	187.42	195.69	0.13	0.13	-0.67
8,611.00	1.81	173.81	8,605.13	-62.41	187.52	196.81	0.59	0.53	-10.13
8,705.00	1.63	165.43	8,699.08	-65.18	188.01	198.38	0.33	-0.19	-8.91
8,989.00	2.25	151.68	8,982.92	-74.00	191.67	205.26	0.27	0.22	-4.84
9,330.00	1.99	151.91	9,323.69	-85.11	197.64	215.18	0.08	-0.08	0.07
LAST MWD SUR	VEY	gi el en en en						u. u. da	
9,385.00	1.99	151.91	9,378.66	-86.80	198.54	216.68	0.00	0.00	0.00

Checked By:	Approved By:	Date: